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ENHANCING PRE-SERVICE TEACHER TRAINING: THE CONSTRUCTION OF AN ONLINE MODEL TO DEVELOP REFLECTIVE PRACTICE

MARK BROOKE

Abstract.

The thesis explored and analyzed an online virtual learning environment (VLE) as a vehicle for facilitating the reflective capabilities of third year pre-service ESOL teacher trainees during field experience block practice. This period was chosen for the study because it is an important time during which neophytes are encouraged, through reflection, to connect theory and practice by applying the learning from their Bachelor of Education tertiary programs to the dynamics of their classroom experiences. The VLE was selected because of the potential benefits of the asynchronous, collaborative discussion forums as a platform on which reflections could be posted and shared. Using action research methodology over eighteen months, three case studies were conducted and a model which could scaffold trainee online reflections constructed. This model entails trainees applying a well-known reflective practice development tool from Argyris and Schön (1978) to enable them to conduct their own small-scale action research projects based on their practicum experiences. It is also designed to facilitate critical thinking that examines events from different perspectives. Findings suggest that trainees could apply the initial single loop learning cycle to their work and report on the outcomes of this. They also suggest that neophyte reflections are improved through online collaboration and asynchronous communication. Thus, the online virtual learning environment can be an effective vehicle for facilitating reflective practice during practicum. However, more research in this field is required as despite these positive results, deeper levels of reflection attempting to apply the second or double loop learning cycle were found to be relatively rare, even when those interactions were co-constructed using tutor Socratic dialogue to guide participant thinking processes. The study concludes by arguing that there is a strong case for this kind of research as it provides trainee teachers with a virtual space to exploit the opportunities that arise during block practice for reflective practice capability development.

UNIVERSITY OF DURHAM

School of Education

2014

**ENHANCING PRE-SERVICE TEACHER TRAINING: THE CONSTRUCTION OF
AN ONLINE MODEL TO DEVELOP REFLECTIVE PRACTICE**

Mark Brooke

A Thesis

Submitted in Part Fulfillment

Of the Doctorate of Education Degree

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Declaration

No part of the material offered in this thesis has previously been submitted by me for a degree in this or in any other University.

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All information derived from this thesis must be acknowledged appropriately.

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‘For the things we have to learn before we can do them, we learn by doing them’.
(Aristotle, 384-322 B.C)

Chapter One

Background, nature, context and contribution of the study

1.1. Chapter introduction.

The following chapter has eight short sections. These offer an overview of the study. The sections are: the background to the study; the nature of the study; the research process; the research questions; the contribution of this thesis; the context of the study; and the structure of the thesis.

1.2. The background to the study.

What constitutes quality teaching is a complex issue (Hattie, 2003). Wang *et al.* (2011) relate three major perspectives which seek to define it. A cognitive resource perspective argues that quality teaching is related to the professional knowledge (Darling, Hammond and Youngs, 2002; Labaree, 2008) and the beliefs, attitudes and dispositions (see Ball, Thames and Phelps, 2008) that teachers bring to the classroom. Another perspective (see Lampert, 2010), links quality teaching to what teachers actually do in the classroom, in particular, how well the learning environment is managed. A third perspective focuses more on the effects of teaching on the students and how well these are prepared to participate in a global economy (Zhao, 2010). According to Sykes, Bird and Kennedy (2010), because of these varying views on what constitutes quality teaching, many initial teacher training programs (ITE) have different foci. This has led to what Wang *et al.* (2011) term a ‘kaleidoscope of notions’ in training programs, which can at times prove to be disparate in terms of the conceptual content of the courses and the foci on teaching practice. It is this researcher’s opinion, that this situation increases the need to develop reflective practice skills in ITE programs.

Developing reflective practice as part of ITE programs is considered by many as quintessential (Argyris and Schön, 1978; Brookfield, 1995; Dewey, 1933; Furlong *et al.*, 2008; Hatton and Smith, 1995; Kennedy and Zeichner, 1989; Korthagen, 1993; Sparks-Langer *et al.*, 1990; Valli,

1993). Through reflection, links between the attributes that define quality teaching can be constructed to form an increasingly complex mental schema. This was evidenced by Melville, Bowen and Passmore (2011), who report that reflection helped to build what they term ‘alert novices’: trainees who were better able to absorb course content, and to link this to their own personal experience as well as their classroom practice. However, despite the positive reports from the Melville, Bowen and Passmore (2011) study, it seems that current global trends in educational field experience practices in schools tend to merely prepare trainees, as they do in-service teachers, to follow prescriptive curricula and teaching methods (Coskie and Place, 2008; Jewett and MacPhee, 2012) or a ‘predetermined standards-based instructional delivery system’ (Weiner, 2001: 29). Despite calls for the empowerment of teachers (e.g., Darling-Hammond, 2006, as cited in Collier, 2011), substantial pressures remain brought on by institutional forces such as school district policy; class size; text books; and tight exam-oriented syllabi (Weiner, 2001; Coskie and Place, 2008; Jewett and MacPhee, 2012). These constraints lead to the removal of pre- and in-service teachers’ voices from discussions about what should be done in order to improve education. In addition, state-run educational training policies such as those funded by the Training and Development Agency for Schools (TDA), now the National College for Teaching and Leadership (NCTL), as part of the National Partnership Project in England (NPP) have tended to suppress the relationship between Higher Education Institutes and schools leading to tensions in the epistemological dimension of training and a questioning of the balance between a possible technical, rationalist approach to professional knowledge rather than a more reflective, theory-oriented focus. Furlong *et al.* (2008: 307) state with regard to the NPP:

‘The essential contributions of higher education to professional formation - the consideration of research, of theory and of critique - all of these have been expunged as important components of professional education’.

This phenomenon is not new. It was clearly described by Erickson (1986: 119) over two decades ago:

‘If classroom teaching is to come of age as a profession – if the role of teacher is not to continue to be institutionally infantilized – then teachers need to take the adult responsibility of investigating their own

practice systematically and critically, by methods that are appropriate to their practice’.

Over a long period, there has been a continuing and widely-spread teacher malaise reported in the academic literature, not only in the UK (Black and Plowright, 2010; Bolton and Hramiak, 2012; Furlong *et al.*, 2008; Rocco, 2010), but also in America (Etscheidt, Curran and Sawyer, 2012; Jewett and MacPhee, 2012), Australia (Newhouse, Lane and Brown, 2007; Reitano and Green, 2012) and developed educational systems in South-East Asia such as Hong Kong (Ng, 2012), the context for this research. Three problems are prominent: prescriptive curricula and training limit teacher and parent-decision making; they are not supportive enough of teacher research; and they do not facilitate child-centered education (see Defalco and Weiss, 2005). The main argument posits that top-down, centralized policy-making in the form of mandates (Coskie and Place, 2008; Jewett and MacPhee, 2012; Weiner, 2001) neglects individualized tailor-made education at the local level and the apparent consequence of this, is student disinterest and classroom misbehavior. It could be argued that the existence of charity-based organizations in the UK such as ‘School Direct’ and ‘Teach First’, and in the US with ‘Teach for America’ (TFA), demonstrates an acknowledgement that there is a need for more direct, school-based training, at the grass roots level, within schools.

Another problem, as Zeichner and Liston (1996) warned, two decades ago, is that ITE programs often appear to take the position that as long as teachers reflect on something the outcome is justified, whatever it is, because there has been a process of reflection, albeit superficial. This same critique of ITE programs was more recently reiterated by Grant and Gillette (2006). These authors (*ibid*: 297) note:

‘Some teachers erroneously believe that if they spend time thinking about their teaching, they are being reflective’.

This malaise has also been prevalent in contemporary nurse reflection reforms occupied with reflective practice over the last two decades (Andrusyszyn, Iwasiw and Goldenberg, 1999; Atack, 2003; Chamney, 2008; Dekker-Groen, van der Schaaf, and Stokking, 2011; Geibert,

2000; Greenwood, 1993; Mackintosh, 1998; Martyr, 1998; Rolfe, Freshwater and Jasper, 2001; Ryan, Carlton and Ali, 1999). For all the outcomes, the development of criticality and reflexivity, has not had an impact in the most complex area, that of nurse-patient interactions. As a result, recent concerns with care qualities question the utility and productivity of reflective practice training in nursing.

The term reflective practice is therefore, to its detriment, very broadly interpreted and applied in varying degrees. Despite some consensus as to the cyclic processes of reflection, as Kennedy and Zeichner (1989) posit, the literature in this field tends to vary greatly in terms of its exact theoretical and praxis-oriented nature, as well as in terms of what the content of reflection should include. For example, Dewey (1933) and Schön (1978, 1982) advocate both reflections on experience as it occurs, using Schön's terms, 'in action' as well as a focused reconstruction of experience after the event, or a retrospection 'on action'. In contrast, according to Van Manen (1977), these notions do not take into account what he refers to as 'anticipatory reflection' or the envisaging of experience and thus the planning of one's actions before acting based on prior understandings. Schön (1982) is further critiqued for his model because, for him, reflection tends to be a solitary, individual act resulting in isolated reflectors and this is in contrast to sociocultural perspectives of learning as participation in communicative acts (see in particular, work done by Bandura, 1977; Bruner, 1986; Vygotsky, 1978; and more recently, Grant and Gillette, 2006 and Hawkins, 2004).

In addition, there is a great deal of diversity with regard to the content or main focus of reflection. Two main components of this diversity are advocates of critical reflection and experiential reflection, or 'assumption analysis' (Brookfield, 1995, McAdams, 2004; Van Manen, 1977). Advocates of critical reflection (Brandt, 2006; Carr and Kemmis, 1986; Grant and Gillette, 2006; Hatton and Smith, 1995; Korthagen, 1993; McTaggart, 1989; Pollard, 2008; Smyth, 1989; Sparks-Langer *et al.*, 1990; Valli, 1993) argue that the goal of reflection is to improve society. Reflectors should therefore be fully aware of the notion that practices in the classroom are inextricably linked to the social, political and cultural institutions of any particular context. By working to improve their classroom practices, these reflectors should be working towards transforming society from the bottom-up. Others (Brookfield, 1995; McAdams, 2004;

Van Manen, 1977) argue that the most essential and pressing content of reflection should be one's own experiences on the basis that ideals, role models and processes of transference contribute to a rich pattern of practices. Thus, being able to reflect on one's assumptions and ideologies is essential and it is said that progressing from this process to entertain counter-intuitive ideas is also possible through reflective practice.

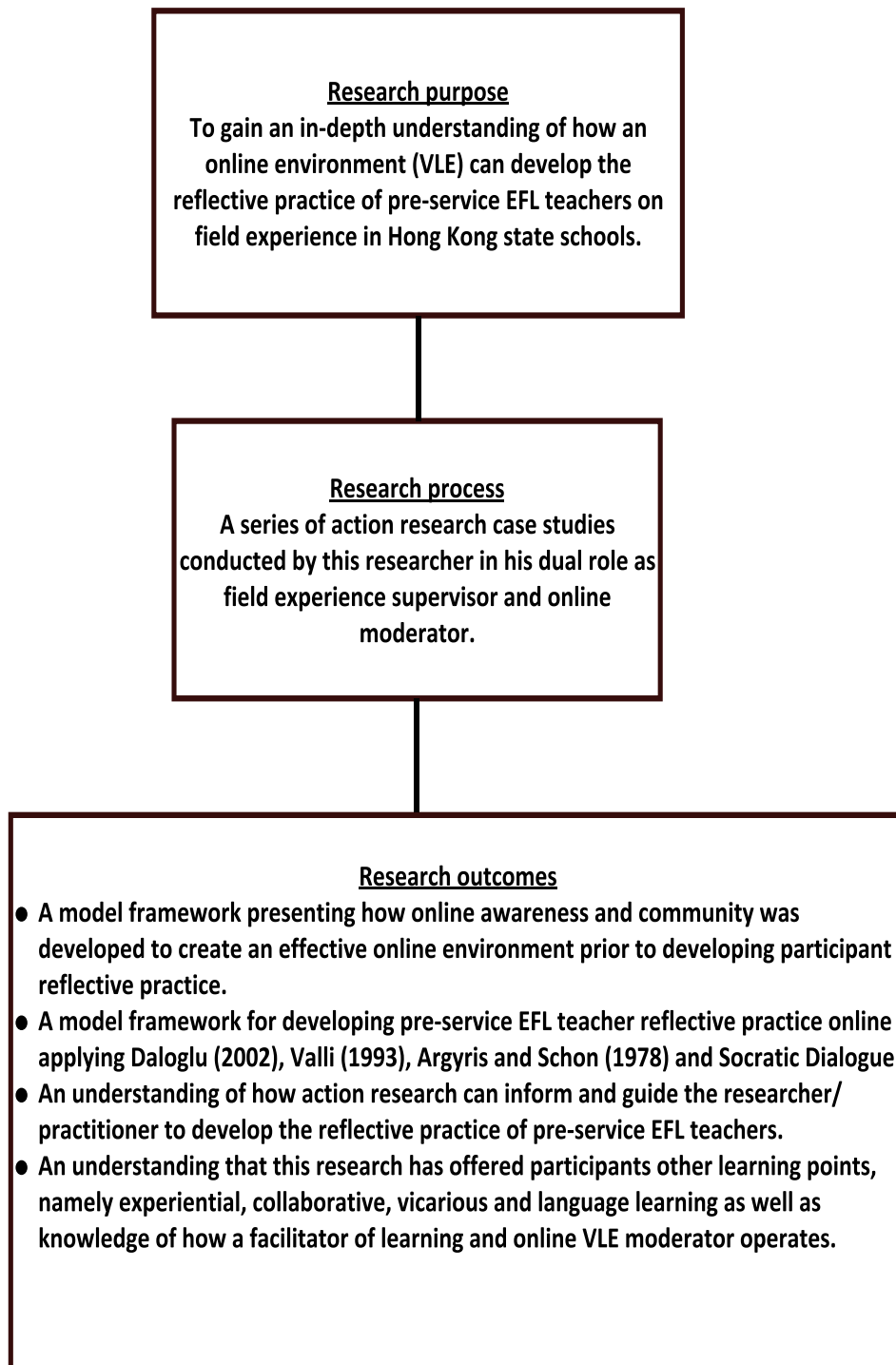
One useful tool used to promote reflective teaching is journaling (see in particular, Bain, Ballantyne, Packer, and Mills, 1995, 1999; Calderhead and Gates, 1993; Daloglu, 2002; LaBoskey, 1993). Traditionally, a journal is a sequence of entries of a person's thoughts or feelings. It is used for humanistic and dialogic purposes. The first is to provide a platform for an individual to express himself. This offers a window into a teacher's emerging thoughts; and the second is to create dialogue, which is very often quite personal communication, (sometimes between the writer and himself; sometimes between the writer and restricted stakeholders), and this may affect the nature of an individual's thinking. Through both monologic narrative enquiry and dialogic interaction, a student's knowledge is constructed. Through retrospective reading of these journals, students are said to be better able at understanding and revisiting their own beliefs about teaching and learning. However, despite the potential that student-book journal writing offers, research (see in particular, Hatton and Smith, 1995; Sparks-Langer, *et al.*, 1990) reveals that the level of sophistication of reflective analysis varies widely, ranging from simple description with little evidence of reflection to a highly sophisticated dialogue through which several perspectives are critically explored.

Reflective book journaling is limited because often it is conducted as a closed activity. These reflections are never or rarely read and responded to by significant others before submission, neglecting opportunities for collaborative learning. Also, these entries are too often product rather than process-oriented, only read by tutors on submission of a reflective assignment, as is the case in this researcher's context, when it is necessary to grade them. As Hobbs (2007) argues, when participants are required to be reflective, this can provoke strategic response. In other words, forced self-examination is rarely a positive learning tool. This also means that pre-service teachers are often not aware of the proposed end-product of the reflections they are making, for example, different thinking or better teaching. In addition, trainees might be unsure about how to

go about the process of reflection. Thus, a new, more open and collaborative tool to develop reflective practice in teacher education has been growing rapidly in importance in the last decade (Bolton and Hramiak, 2012; Davis and Roblyer, 2005, Galanouli and Collins, 2008; Yang, 2009). This is e-journaling through blogging and collaborative communication using online discussion forums. This researcher decided to experiment with this system to attempt to deal with the issues raised above and explore how an online virtual environment (VLE) can develop the reflective practice of pre-service EFL teachers.

In 2013, the virtual learning environment (VLE), in particular, Blackboard, was being used by over three thousand, seven hundred educational institutions in more than sixty countries. Recent research reveals that the accessibility and support provided by e-journaling could make it preferable in teacher education to traditional book journaling (Galanouli and Collins, 2008; Murillo, 2008; Simonsen, Luebeck and Bice, 2007; Yang, 2009). Murillo (2008) has recently found that during block practice, there was a high volume of student teacher participant interaction online which led to regular and highly-focused topic-related discussions as problems were brought up and solved. Simonsen, Luebeck and Bice (2007) partnered students with teacher educators online as part of a virtual teacher education training system using email and forum discussion. The authors witnessed highly positive results indicating that student participants gained important professional insights via this new medium. Similarly, Yang (2009) found that teacher educators responding online to student teachers' blog postings helped to raise participants' levels of critical reflection.

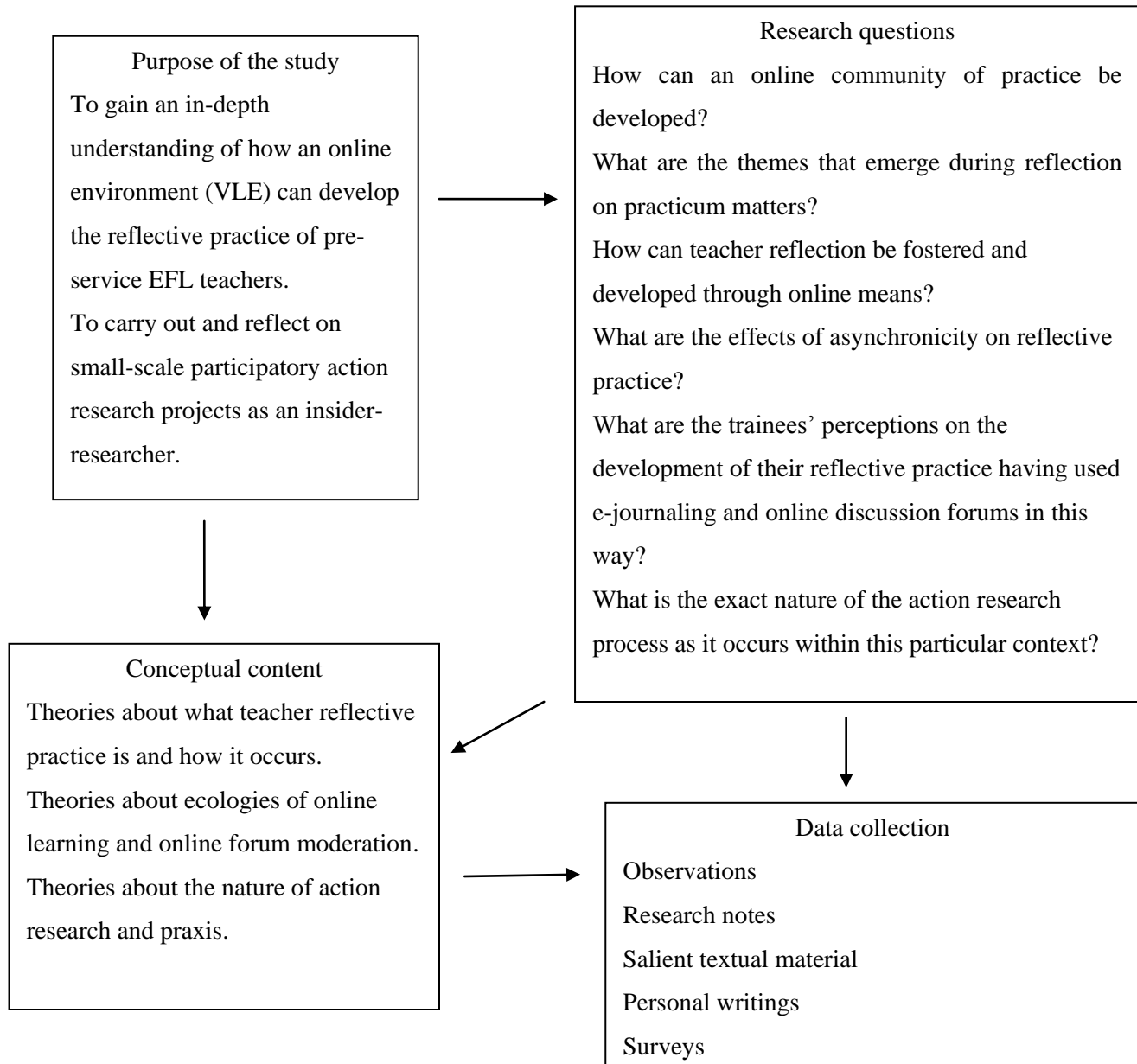
Figure one. Core representation of the study.



1.3. The nature of the study.

The study's purpose, the research questions emanating from this, the conceptual basis of the research and the sources of data used have all been laid out in diagram form below. This describes the nature of the study.

Figure two. Expanded representation of the study.



This researcher, in his capacity as e-moderator, teacher educator and field experience supervisor investigated three groups of eight pre-service teacher trainees, during their eight-week field experience practicum. This field experience period was part of the third of a four-year B.Ed. program in English language teaching for both primary and secondary student teacher trainees in state schools in Hong Kong. One overall purpose framed this investigation:

To gain an in-depth understanding of how an online environment (VLE) can develop the reflective practice of pre-service EFL teachers.

Proceeding from the study's purpose, the research had the following principal objectives:

1. To examine how an online community of practice can be set up and developed;
2. To examine the nature of reflective practice in a diverse teaching community;
3. To examine the efficacy of an online environment's e-journaling and discussion forums for the development of reflective practice;
4. To examine how e-journaling and discussion lead to change in reflective capability.

In order to meet these objectives, the following questions were asked during the study:

How can an online community of practice be developed?

What are the themes that emerge during reflection on practicum matters?

How can teacher reflection be fostered and developed through online means?

What are the effects of asynchronicity on reflective practice?

What are the trainees' perceptions on the development of their reflective practice having used e-journaling and online discussion forums in this way?

In addition to the overall purpose, objectives and questions, there was a parallel and continuous reflective commentary analyzing the process of the action research of the study. This reflection examined how the action research paradigm could inform and guide this practitioner to achieve the purpose. The ongoing question with regards to the research paradigm conducted throughout the study was: **what is the exact nature of the action research process as it occurs within this particular context?**

1.4. The research process.

This work was an action research project. Therefore, the results were constructed as part of an ongoing process of discovery rooted in trial and error practice, a process combining experiential learning and reflection. This reflection was based on observations and analysis of participant interactional patterns online as well as analysis of participant posting content. Interactions and posting content were then subjected to examination applying well-known typologies developed for these purposes in the academic literature.

The research questions follow on from the initial discovery made by this researcher that pre-service trainees had difficulty choosing what to reflect about and how to reflect. They tended to focus on pragmatic, immediate concerns (as also reported by Salazar *et al*, 2010; Valli, 1993; and Yang, 2009) rather than more critical reflections incorporating social, political or ethical viewpoints. The purpose of the research: *'to gain an in-depth understanding of how an online environment (VLE) can develop the reflective practice of pre-service EFL teachers'* was facilitated by a series of three action research case studies which culminated in the implementation of a combination of reflective mechanisms and moderator practices online exploiting the asynchronous environment. The culmination of these strategies developed was the *'model for developing reflective practice online'* and the *'Socratic dialogue: two-step procedure'*. It was found that students were able to work with reflective mechanisms used for the development of reflective practice soon after their first exposure to these. However, during the next reflective phases, in other words, applying these frameworks to the single learning cycle or the double loop learning cycle from Argyris and Schön (1978), was much more problematic. To facilitate this progression, tutor Socratic dialogue was necessary. A diagram explaining the preliminary research process is given below in figure three. This is then followed, in figure four, by a diagram explaining the eventual research process implemented by the end of case study three. It can be observed that, although these processes embody the same fundamental stages, they appear quite different. This is because whereas cycles in figure three represent the purpose and broad objectives at the outset of the research, figure four represents the actual strategies developed in order to achieve these. Thus the differences that can be observed between these research processes demonstrate the learning journey of the study.

Cycle one in figure three is related to ‘start of online postings’ and ‘is the COP able to grow organically?’ in figure four.

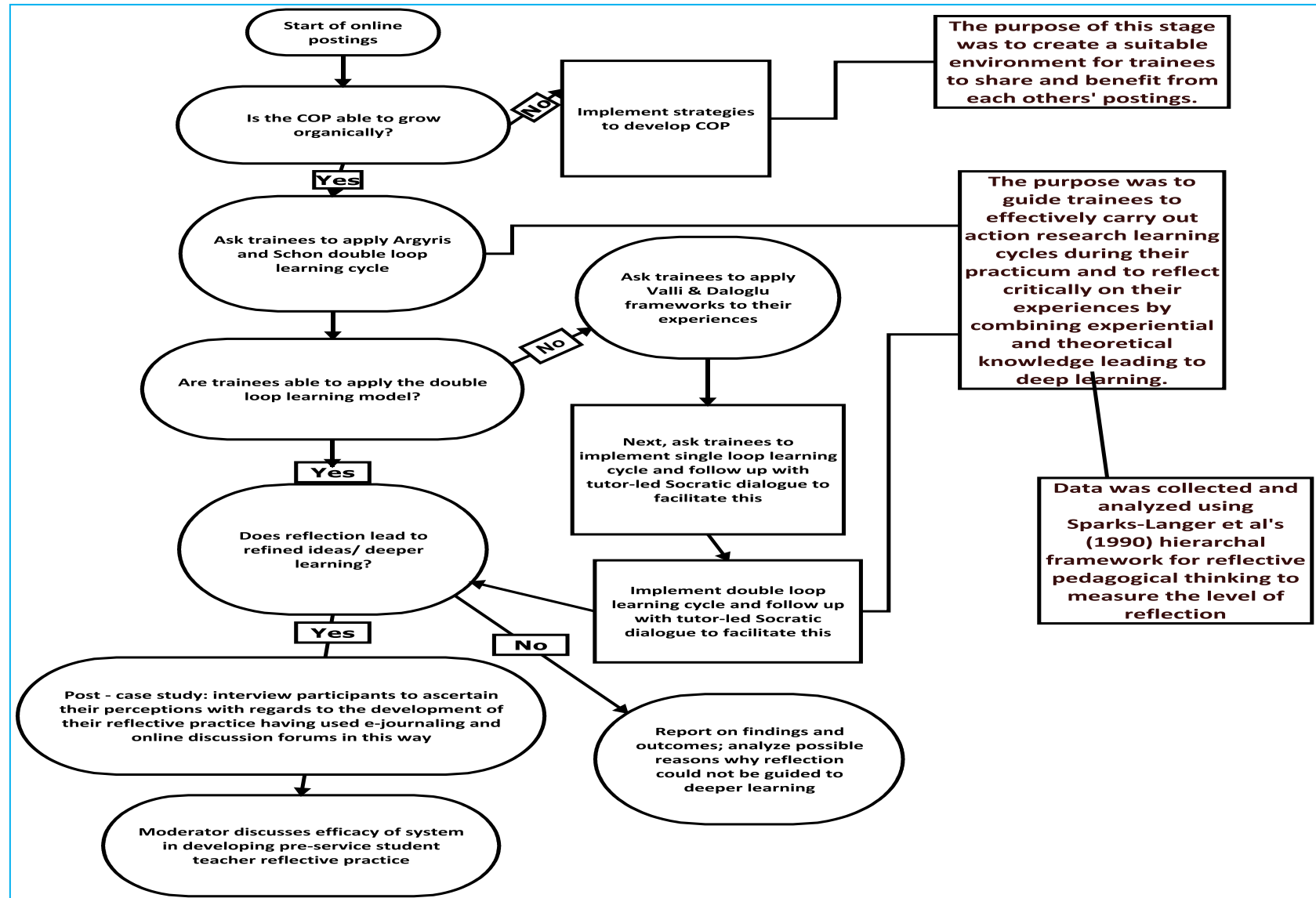
Cycle two in figure three is related to ‘ask trainees to apply Argyris and Schön double loop learning cycle’, ‘are trainees able to apply the double loop learning model?’ and ‘does reflection lead to refined ideas/ deeper learning?’ in figure four.

Cycle three in figure three is related to ‘post-case study: Survey participants to ascertain their perceptions with regards to the development of their reflective practice having used e-journaling and online discussion forums in this way’ and ‘moderator discusses efficacy of system in developing pre-service student teacher reflective practice’ in figure four.

Figure three. Initial research process.



Figure four. Final research process.



The study explored the following research questions during the different stages of the research process:

1.5. The research questions.

Stage one – action research question:

How can an online community of practice be developed?

Stage two – action research questions:

What are the themes that emerge during reflection on practicum matters?

How can teacher reflection be fostered and developed through online means?

Stage three - action research questions:

What are the effects of asynchronicity on reflective practice?

Stage four – post-action research question:

What are the trainees' perceptions on the development of their reflective practice having used e-journaling and online discussion forums in this way?

Throughout these stages, this researcher was reflecting on and making notes to answer the question: **what is the exact nature of the action research process as it occurs within this particular context?**

This question on the nature of the action research process therefore belongs to pre-, while and post research stages. In addition to a continuous examination of the research paradigm, this researcher also constantly observed and recorded his reflections on the efficacy of the system developed for facilitating a growth in pre-service student teacher reflective practice. The questions in bold above, meeting the research objectives, were analyzed over three case studies. This researcher had two key roles during these case studies: field practice supervisor and online moderator.

Question one, *how can an online community of practice be developed?* was tested through multiple observations of the quality of online interaction and discourse. At the beginning of each case study, this researcher observed participant interactions on the forums and looked for evidence of Wenger's (1998) notions of 'community', 'practice', 'meaning' and 'identity' in the interactional patterns and posting content. These are said to be present when an online community has developed. This is further presented in chapter two as part of the literature review on using technology for teacher training. As presented in figure three above 'develop interaction', during the initial stages of the study, members were given an open task, which was to conduct self-introductions online. Based on observations of the evidence, this stage saw the construction of the '*model for developing online awareness and community*'.

Question two, *what are the themes that emerge during reflection on practicum matters?* was examined through multiple observations of the quality of online interaction and discourse. Using established frameworks for analyzing neophyte reflection topics from Ho and Richards (1993) and Shulman (1987), the content of the postings was categorized into themes. The outcome of this grouping stage helped to judge the efficacy and lead to the development of the strategies constructed, in other words, the '*model for developing online awareness and community*'; the '*model for developing reflective practice online*'; and the '*Socratic dialogue: two-step procedure*'. This is because if the content was categorized as either 'demonstrating self-awareness and self-evaluation' or 'discussing broader issues in education' using the typologies from Ho and Richards (1993) and Shulman (1987), it was observed that the models were proving effective. This is explained in chapter three.

Question three, *how can teacher reflection be fostered and developed through online means?* was assessed through multiple observations of the quality of online interaction and discourse as the reflective frameworks (Daloglu, 2002; Valli, 1993) and cycles (Argyris and Schön, 1978) were implemented. The content of these postings was then categorized using an established typology for measuring the levels of reflective pedagogical thinking from Sparks-Langer *et al* (1990). The typologies from Sparks-Langer *et al* (1990), Ho and Richards as well as Shulman (1987) are complementary. For example, the theme from Shulman (1987) 'discussing broader issues in education' can be further analyzed for reflection level seven 'explanation with

consideration of ethical, moral or political issues' from Sparks-Langer *et al* (1990). In the same way, some of the postings from the other important reflection category 'demonstrating self-awareness and self-evaluation' were also analyzed using Sparks-Langer *et al*'s (1990) typology to measure for reflectivity. Thus, answers to question two helped to inform the answers to question three. Examples of student writing were selected to demonstrate the efficacy of the strategies online and how these benefited participant reflective writing. The result of the action research at this stage of the thesis was the construction of the '*model for developing reflective practice online*'.

Question four, *what are the effects of asynchronicity on reflective practice?* was also assessed through multiple observations of the quality of online interaction and discourse throughout the case studies. Results from question three informed this stage. As the content of the postings categorized was commonly below level seven of the hierarchal framework from Sparks-Langer *et al*'s (1990), this particular stage of the thesis saw the construction of the '*Socratic dialogue: two-step procedure*' to boost reflective analysis.

Question five, *what are the trainees' perceptions on the development of their reflective practice having used e-journaling and online discussion forums in this way?* was tested by asking case study participants at the end of each study to answer questions asynchronously about the online site constructed and, in particular, to relate these perceptions to determine how effective this was in developing reflective practice. Thus, answers to this question informed questions one, two, three and four.

Question six, *what is the exact nature of the action research process as it occurs within this particular context?* was examined through multiple observations of the quality of online interaction and discourse throughout the case studies, retrospective analysis of personal writings and research notes as well as reflections on the feedback from participants over the course of the study. The answers to this question helped to inform all of the other questions simultaneously as the research involved the continual trial and error discovery learning inherent in the action research paradigm. Without answers as to how this learning was facilitating the development of the three models ('*model for developing online awareness and community*'; '*model for*

developing reflective practice online’; ‘Socratic dialogue: two-step procedure’), they may not have been constructed.

1.6. Caveat about the representation of the staging of the research process

Although in 1.5, the action research stages appear to follow as a series of fixed steps; these stages were often interconnected, creating a mutually reinforcing and complex web of spirals. As Burns (2005) warns, there is thus, a danger in representing the process as a systematic model that has a linear progression. As she states, the process is often much ‘messier’ (2005: 59) than the model may suggest. In reality, action research is better described as an adaptive approach, which evolves in relation to the educational circumstances of the environment. As a result, stages 2 and 3, in particular, were, in effect, being examined simultaneously. The ‘two-step procedure’ and moves developing collaboration were being used to foster teacher reflection; thus these are inherently interrelated. However, the study was set out in this systematic way as a pre-research plan because the main *goal* was to foster teacher reflection and part of the *means* to achieve this were the Socratic dialogue moves; it was therefore logical to commit to achieving the development of reflective practice first, and then to examine the moves conducted after the event and then code these.

1.7. The contribution of this thesis.

This thesis will add to the field of research that enquires into and challenges existing models of teacher training practice. These existing models tend to focus predominantly on teaching techniques and gaining knowledge as an iterative checklist in a training program. This has been labeled by Leinhardt and Greeno (1986) as ‘knowledge of practice’. In contrast, Leinhardt and Greeno (1986) refer to ‘knowledge for practice’ as knowledge constructed through the promotion of teacher self-reflection processes focusing on experience integrated with the study of relevant theoretical academic literature and critique. ‘Knowledge for practice’ seeks to develop more autonomous teachers who are better able at effectively applying learning in the classroom. This work is therefore original because it seeks to genuinely help trainees in their development as critical, reflective language teachers and presents participants’ voices through the presentation of their life worlds.

Part of this field of research belongs to the examination of applying reflective tools in teacher training through paper journaling and the application of questioning frameworks (see Daloglu, 2002; Hussein, 2006; Peters, 1991; Rolfe, 2001; Roth, 1999; and Smyth, 1989) and reflective cycles (see Argyris and Schön, 1978; Gibbs, 1988; Korthagen and Vasalos, 2005) to facilitate reflection. Another part, is a growing field on how technology can accommodate the development of teacher reflective practice (see Davis and Roblyer, 2005; Gleaves and Walker-Gleaves, 2010; Lock, 2006; Murillo, 2008; Salazar, Zenaida Aguirre-Munoz, Fox and Nunez-Lucas, 2010; Simpson, 2006; Yang, 2009). Gratton (2001) and more recently, Salazar *et al* (2010) report that although the field is expanding, more research is required in the use of online forums and how the use of reflective tools online might foster reflective practice. For example, although the number of online discussions among pre-service teachers increased as their community Project TEACH evolved, Salazar *et al* (2010) report that the complexity in trainee thinking about educational issues did not.

It is hoped that findings from this study will be of use to teacher educators who are working (particularly online) with their trainees during practicum by providing theoretical knowledge and empirical evidence on the construction and application of strategies used to develop an effective system for trainee reflective practice. It is believed that teacher education programs would be greatly improved if a more important focus on developing critical reflection using the online environment were adopted. This is especially salient during practicum placement when trainees can often find themselves isolated from their peers, trainers and tertiary institutions. Through the support offered by the online environment for the sharing of teaching experiences during practicum, and the opportunity for individual critical reflection, as well as group discussion, trainees can be encouraged to continually refine their practices. This kind of support and opportunity, it is argued, is essential for the growth of the reflective practitioner (Britton, Paine, Pimm and Raizen, 2003; Cochran-Smith and Lytle, 2009; Feiman-Nemser, 2001; Moir and Gless, 2001) and culminates in trained teachers who are more able in and out of the classroom as they have developed a greater awareness of themselves and their environments.

1.8. The context of the study.

After a brief synopsis of the Hong Kong tertiary system, there follows below, an international and then a local perspective on the importance of field experience in training pre-service teachers.

Hong Kong's tertiary education system.

In Hong Kong, there are four post-secondary education institutes which offer full-time and part-time degree and postgraduate programs for pre-service and in-service teachers. These are the Hong Kong Institute of Education (HKIEd), the Chinese University of Hong Kong (CUHK), the University of Hong Kong (HKU) and the Hong Kong Baptist University (HKBU). HKIEd, where this research occurred, can be found in Tai Po in an area called the New Territories, quite close to the border with mainland China. It was granted self-accrediting status in 2004 and currently provides doctoral, master and undergraduate degrees, as well as post-graduate diplomas, certificates, and a range of in-service programs to around seven thousand pre-service students and serving teachers. Eighty four percent of Hong Kong's primary school teachers and thirty percent of secondary school teachers are graduates of HKIEd. The Institute is thus the largest teacher education provider in Hong Kong. The research took place with students from the Department of English at the Institute of Education, Hong Kong, where this researcher was working as a Senior Teaching Fellow.

Field experience/ practicum.

ITE programs consider practicum in a school as a quintessential aspect of teacher learning (Darling-Hammond, 2006; Derrick and Dicks, 2005; Imig and Imig, 2006; Johnson, 1996; Liston *et al*, 2006; Otero, 2006; Richards, 1998). Johnson (1996) posits that the most important stage in learning teaching occurs during this time. Similarly, Richard and Crookes (1998: 9) describe practicum as the:

‘Major opportunity for the student teacher to acquire the practical skills and knowledge needed to function as an effective language teacher’.

Neophytes are given the opportunity to reflect on teaching through practice and observation.

They are also able to carefully consider the teaching and learning encountered during their tertiary programs as well as to question in context, their own educational beliefs emanating from their previous schooling. It is not surprising therefore, that some (Darling-Hammond, 2006; Derrick and Dicks, 2006) have likened the teaching practicum experience to clinical placements. Darling-Hammond (2006: 85) states:

‘Just as medical educators believe physicians cannot properly apply the techniques of medicine without understanding how the human body works, teacher educators in these programs believe that without direct knowledge of how learning occurs, teachers have no benchmarks by which to evaluate teaching ideas or materials, construct learning opportunities or adapt their teaching when students do not respond to a particular approach’.

According to Derrick and Dicks (2006), this experience is so important that it facilitates the transition from student to teacher consciousness. This is because through practicum, and the development of self-observation skills, trainees are gaining insights into the myriad of elements that they need to be aware of in the classroom, including such notions as learner diversity, peer to peer influence and socio-cultural effects on learning.

During block practice in Hong Kong, student teachers move from shadowing and assisting an experienced mentor-teacher in the classroom, working with individuals or small groups (normally for the first four weeks or less), to taking over and teaching a class of between thirty five and forty students. During the first few weeks of their practice, they are provided with guiding questions by the institute to consider the dynamics of the classroom. They are encouraged to think about elements such as what the pupils do during class and how they learn; the teacher-pupil and pupil-pupil interactions; and the genre and use of resources. In addition, during mentor-observation sessions, trainees are encouraged to think about ways the experienced teacher generates the pupils’ interest on a given topic; how the teacher shows sensitivity to the pupils; and how monitoring takes place. The trainees are invited to ask their supporting teachers about their work. In addition, during all observations in class, trainees are encouraged to

approach pupils to discuss issues with them such as what they have learnt; and what they like about schooling. After each learning experience, it is suggested that trainees write down any insights that they have gained whilst they are fresh in their minds and that they return often to these notes and reflect on them.

In addition to the placement supervisor, there is a field experience supervisor from the Institute of Education (IED), Hong Kong; it was this researcher's role during the study. The IED supervisor is asked to observe and assess the trainees on two occasions (one observation occurs about five weeks into practice and another about seven weeks into practice). These observations are not graded in the third year, solely evaluated pass or fail. The IED supervisor must liaise with the school Principal then set up a tripartite meeting with the student teacher and the mentor (supporting teacher). Observing a trainee entails communication several days before-hand to allow time for discussion over a lesson plan; as well as pre-lesson discussions just before the event; and post-lesson discussions immediately after. Following that, meetings with trainees to go over the feedback of these observed lessons may take place over several weeks. Each conference session is designed to provide the opportunity for meaningful reflection where theory can be carefully considered and linked with practice with a view to improving it. Ultimately, it is the supervisor from the Institute of Education who has the responsibility to determine whether the student teacher is ready to enter the profession.

At the end of each block practice, trainees at the Hong Kong Institute of Education are asked to complete a portfolio reflection of three thousand words about their learning during practicum. This is subject to assessment, and failure in this task will result in overall failure. An evaluation form with specific criteria is used to assess reflective assignments. These are divided into three categories: content and evidence; discussion and reflection; and organization and presentation. The content and evidence of the portfolio should provide a synergy between theory and practice, and illustrate a good grasp of pedagogical and linguistic knowledge. In addition, reflection on and analysis of classroom teaching and innovation should have been conducted, and reflections based on responses to observations and experiences should be critical and original. In sum, trainees should demonstrate an awareness of the many factors that constitute effective practice in

teaching their given subject, in this case, English as a foreign language, in Hong Kong primary and secondary schools.

1.9. The structure of the thesis.

Chapter two offers a literature review of three key, interrelated areas. These are the significance of reflective practice in teacher education; traditional mechanisms for fostering and assessing reflective practices; and electronic communications and journaling and their contributions to reflective practices:

The first section of chapter two is a review of the literature on the significance of reflective practice in teacher education. Inquiry-based instruction is a move away from a transmission view of teacher education. It strives to develop the teacher as effective reflector; one who has developed the right attitude, outlined, among others, by Dewey (1933). The review describes the importance of inquiry-based instruction and the characteristics of the effective reflector, and explicitly focuses on the content, process and modes of reflection that can be applied to achieve a state of effective reflector. The mode is linked to whether reflection is done individually or collaboratively; the process is linked to the time scales by which reflection is conducted; and the content asks whether the reflection is concerned with technical issues (classroom management) or practical questions (everyday events and problems such as having to substitute for another teacher) or whether more critical issues are considered (for example, social justice).

The second section of chapter two follows on from the first to consider mechanisms used to foster and assess reflective practice. These mechanisms have already been applied and researched in paper journaling as guiding methodologies for trainees in various fields (particularly education) in order to help users become adept reflectors. The principle models utilized for this research are presented and discussed and are placed within the literature. The combination of mechanisms applied here consists of reflective frameworks put forward by Valli (1993) and Daloglu (2002); conceptual cycles known as ‘single loop’ and ‘double loop’ learning cycles from Argyris and Schön (1978); and tutor-led embedded Socratic dialogue to guide learners’ reflections using questioning and feedback prompts (see Hattie, 2007). This section is concluded with a short exploration of the significance of social, collaborative learning and how

this could relate to the development of reflective practice. This is done to aid the reader to understand that the collaborative act of e-journaling using online, shared discussion forums is potentially more effective than an individualized act of paper journaling.

The third section of chapter two examines the nature of electronic communication and its potential contribution to reflective practice. This section presents the use of technology, particularly online journaling and discussion forums, for fostering reflective practice in teacher education. It also examines the community of practice (COP) and what is required to set up a small, time-limited, task-based COP such as the ones developed during this research. After that, this section presents constructivist educational theory and how, through online blogging and discussion, this can be related to social, collaborative learning and the development of reflective practice. The section then closes by analyzing the online characteristics of asynchronous communication and vicarious learning, and relates these to this study demonstrating why these could potentially facilitate the growth of reflective practice online.

The thesis proceeds, in chapter three, to present the research methodology used for the study. This work was an action research project led by this researcher in his roles as online moderator and field experience supervisor:

First, a presentation of the action research cycle is provided. Second, the content analysis of the discourse for data categorization is explained. This is then followed by an explanation of the methods used to analyze the data collated: these included several typologies for examining both online collaboration and posting content. A well-established typology developed by Wenger (1998) was used to examine the discourse in order to establish whether the community of practice could be deemed developed. It was found that this was a pre-requisite to open sharing and reflection online. This part answers the research question: *how can an online community of practice be developed?*

Next, a content analysis of reflections was conducted using typologies from Ho and Richards (1993) and Shulman (1987) to categorize the topics discussed on the forums. This section answers the research question: *what are the themes that emerge during reflection on practicum matters?*

After this categorization stage, posting content particularly belonging to ‘discussing broader issues in education’ and ‘demonstrating self-awareness and self-evaluation’ was further analyzed using Sparks-Langer *et al*’s (1990) levels of reflection typology. This section therefore helps to answer the question: ***how can teacher reflection be fostered and developed through online means?*** The Ho and Richards (1993), Shulman (1987) and Spark’s-Langer *et al* (ibid) typologies guided this researcher’s action research practices throughout as they aided him in determining the effectiveness of strategies implemented to develop trainee reflections.

In chapter four, the findings from the case studies are presented:

The first set of data reveals what is involved in setting up and building an online community of practice to develop an appropriate environment for the sharing of reflections among participants. This seeks to answer the question: ***how can an online community of practice be developed?***

The second set of data examines the nature of reflective practice in a diverse teaching community. It answers the question: ***what are the themes that emerge during reflection on practicum matters online?*** To do this, the number and percentage of the occurrence of each theme emerging from the forums over all three case studies are provided.

The third set of data examines the efficacy of an online environment’s e-journaling and discussion forums for the development of reflective practice. They seek to answer the question: ***how can teacher reflection be fostered and developed through online means?*** Postings from both online journaling and discussion forums are analyzed qualitatively and how they lead to change in reflective capability presented.

The fourth set of data examines the question: ***what are the effects of asynchronicity on reflective practice?*** In particular, this section looks at how online Socratic dialogue was found to be effective in increasing reflective practice. This strategy was found to be one way to exploit the asynchronous nature of the online environment.

The fifth set of data answers the question: ***what are the trainees’ perceptions on the development of their reflective practice having used e-journaling and online discussion***

forums in this way? To do this, the perceptions of the trainees through responses to five questions answered at the end of each case study are presented and discussed.

Finally, the sixth set of data answers the question: *what is the exact nature of the action research process as it occurs within this particular context?* This is answered in particular in two sections, the first 4.2., which represents the ‘*pre- and while-case study research narratives*’, and the second, 4.9., which is ‘*the post-research narrative*’. These sections reveal the reflections of this researcher and present the process of learning undertaken over the thesis period, and in particular, the way that the study was perceived at the end of the case studies in comparison to how it was perceived at the pre- and while-research phases.

In chapter five, several key learning outcomes perceived throughout the research are discussed. These in large part relate to the research questions answered throughout chapter four. They also relate however, to other learning subjects that have emerged such as this researcher’s reflections on the research outcomes from this study in light of other recent research in the field of reflection and journaling; this researcher’s reflections on the importance of positionality and collaboration when conducting research; and thoughts on the data collection methodology applied for this study. The next part of this chapter moves on to consider the impact of the research on the participant student teachers involved in terms of other learning points that this researcher has perceived. This has been broken down into several key areas: experiential; collaborative; vicarious; and language learning. It is also argued that participants may have implicitly acquired knowledge about how a facilitator of learning operates; and how an online moderator sets up and maintains a VLE.

In chapter six, to conclude, there is first a closing summary explaining what the research project was: its aims, purposes and methods; and how these findings exemplify each of the research questions explored. Then, recent trends in educational developments within this study’s field are examined. Following this, there is a critical analysis of the educational environment in this researcher’s context and a description explaining why more of this research is required. After that, there is a closing evaluation of the contribution of the thesis to the field of developing trainee teacher reflective practice during which there is a discussion presenting what the thesis has achieved with regard to this. There is then a section evaluating the originality of the work,

followed by a section consisting of personal reflections on how this researcher's practices and beliefs evolved during the thesis period of four years. Finally, an analysis of the limitations of the research is offered and a presentation of aspirations for future related research developments given.

Chapter Two

Literature Review

2.1. Chapter introduction.

The following chapter has two main sections. The first analyzes the literature on reflective practice in teacher education and strategies used to guide trainees to develop effective reflection. The second section examines the nature of the e-learning environment and the use of technology in developing reflective practice.

2.2. Section one outline.

This section will

- define reflection and discuss the personal attributes of the effective reflective practitioner in teacher education;
- relate the fundamental notions of the effective reflective practitioner and processes of reflection to recent research in reflective practice in teacher education;
- outline the fundamental notions of the processes of reflection;
- examine the traditional strategy of narrative exploration in paper journaling and present its limitations as a means to developing reflective practice in teacher education;
- discuss established reflective mechanisms such as questioning frameworks, reflective cycles and Socratic dialogue used in paper journaling to develop reflective practice in teacher education.

2.2.1. Defining the reflective practitioner.

Black and Plowright's (2010: 246) definition of reflection is particularly salient to this research:

‘Reflection is the process of engaging with learning and/or professional practice that provides an opportunity to critically analyze and evaluate that learning or practice. The purpose is to develop professional knowledge, understanding and practice that incorporates a deeper form of learning which is transformational in nature and is empowering, enlightening and ultimately emancipatory’.

Becoming a reflective practitioner means going beyond reflection at a superficial or technical level (mere instructional strategies). In order for it to become empowering, reflectors must first seek understandings of their underlying assumptions about education based on prior experiences and second, reflect on moral, ethical, social and political issues in education. Dewey (1933) explains that for these processes to become habitual, trainees should develop the necessary personal attributes that characterize and help to define the reflective practitioner. These attributes are ‘open-mindedness’, ‘responsibility’ and ‘wholeheartedness’, and, as noted recently by Melville, Bowen and Passmore (2011), they are still used as objectives in developing effective teachers today.

Open-mindedness.

Pajares’ (1992) seminal work views attention to the beliefs of teachers and neophytes as an essential focus of any training program because teachers’ beliefs greatly influence their actions. In the same way, Dewey (1933) places an emphasis on teachers seeking to find out, understand and critically reflect on their beliefs. He (1933: 29) states that ‘open-mindedness’ is:

‘An active desire to listen to more sides than one, to give heed to facts from whatever source they come, to give full attention to alternative possibilities, to recognize the possibility of error even in the beliefs which are dearest to us’.

Being ‘open-minded’ means to be willing to learn from experience and in particular to entertain new or counter-intuitive ideas, and to change or even discard present beliefs. Thus, rigorous reflection involves teachers consciously reflecting on their assumptions and ideologies. According to Zeichner and Liston (1996), and other teacher educators (Kagan, 1992; Korthagen, 2004; LaBoskey, 1994; Pajares, 1992), past schooling experiences are frequently what trainee teachers refer to when they think about how they want to teach. Indeed, Brookfield (1995) suggests that recalling first experiences of being taught should be one of the initial stages on the critically reflective journey as these experiences are extremely influential in one’s own practice. Consequently, it is argued that teachers need to ask themselves questions such as ‘what kind of teaching did I like/ dislike at school?’ (Korthagen, 2004: 81). Dewey (ibid) juxtaposes this kind of ‘open-mindedness’ to ‘mental sluggishness’ (1933: 137) and ‘self-conceit’ (ibid), both of which are embedded in latent assumptions. The first closes the mind to any new ideas leaving a

teacher who inevitably operates according to generalizations and even stereotypes; the second restricts the teacher from admitting his wrongdoings. Practices are therefore difficult to change as they are often deeply engrained in experience and have often been constructed over a considerable timeframe. Dewey (1933: 30) writes:

‘The path of least resistance and least trouble is a mental rut already made. It requires troublesome work to undertake the alteration of troublesome beliefs’.

With ‘open-mindedness’, teachers strive to increase their awareness of the existence of these ruts, or what Dewey (1933) terms ‘pet’ notions, and they consciously reflect on rationales based on past schooling knowing that they may take these too often to be the norm. Further, ‘open-minded’ teachers are sympathetic to other views and able to empathize with, even absorb these, if they are deemed better than their own. Dewey (1933: 31) thus states that the essence of the open mind is an ‘alert curiosity and spontaneous outreaching for the new’.

Responsibility.

To be ‘open-minded’ is not enough for Dewey (1933). A teacher must not only be able to consider and interpret but also to stand up and to act regarding social and educational issues. This reflective action is ‘responsibility’. Dewey (1933: 30) states:

‘To consider the consequences of a projected step; it means to be willing to adopt these consequences when they follow reasonably’.

According to Dewey (1933), once a teacher has made a decision based on evidence, the teacher must shoulder the responsibilities of that decision, whether there are advantageous or disadvantageous consequences. This brings into play the notion that teachers need to have a reflective social awareness because the ethical and social repercussions of their actions need to be accounted for.

This notion is also reflected in the work of more contemporary proponents of critical reflection (see Beyer, 1988; Burnett and Lingam, 2007; Carr and Kemmis, 1986; Godonoo, 1998; Hatton and Smith, 1995; Kemmis and McTaggart, 1988; Maher and Rathbone, 1986; Manouchehri, 2002; Sockman and Sharma, 2008; Sparks-Langer *et al*, 1990). These authors argue that reflection must lead to action to improve society. There is a need for critical scrutiny of the institutional, political and cultural elements of a particular context and how these affect the educational system. Indeed, these elements of society are reflected in the practices of the classroom. As Beyer (1988: 37) argues:

‘Activities of the classroom frequently carry with them as part of their own identity, meanings and values that are inherently political. Since school practice cannot be separated from larger social, political and ideological realities, they (teachers) must be reflective about the full range of consequences of their actions’.

All activities in the classroom are value-based (Handal and Lauvas, 1987). For example, common notions whether a classroom is identified as a competitive or a collaborative environment co-exist. These values affect how we interpret and react to transmitted knowledge and how students interact with each other. Some teachers feel that it is important to train students for the competitive market place; consequently, they promote an individualistic, excellence-driven educational environment. Others may wish to instill social and collaborative values; thus, they promote collective or collaborative group activities with sharing and encouragement as the real interest. ‘Responsibility’ is the awareness of one’s beliefs and the acceptance of the consequences of these based on the events that arise in one’s environment.

Wholeheartedness.

The third of Dewey’s (1933) necessary attitudes is ‘wholeheartedness’. He posits that reflective teachers need to demonstrate focus and dedication. He (1933: 30) writes:

‘There is no greater enemy of effective thinking than divided interest . . . A genuine enthusiasm is an attitude that operates as an intellectual force. When a person is absorbed, the subject carries him on’.

For Dewey (1933), the attitudes of ‘open-mindedness’ and ‘responsibility’ should provide the major focus of the reflective teacher. If they are, and this is at the required level of absorption, then ‘wholeheartedness’ is present. This notion of focus has recently come to the forefront in teacher education, in particular through Costa’s (2012) work on ‘habits of mind’, operationalized in education programs in countries such as Australia and New Zealand; and in Dottin’s (2008) work in the US on the significance of dispositions in teaching. For Dewey (1933), and these more recent educators, the trinity of ‘open-mindedness’, ‘responsibility’ and ‘wholeheartedness’ combine to shape focused, dedicated dispositions, and these must be demonstrated in teacher preparation programs in order to render teachers effective.

2.2.2. ‘Alert novices’ and ‘common sense thinkers’.

This section relates Dewey’s (1933) fundamental notions of the effective reflective practitioner to recent research in developing reflective practice in teacher education.

As already noted, Melville, Bowen and Passmore (2011) demonstrate recently, through research, that Dewey’s (1933) illustration of teacher attributes are still used as objectives in defining effective teachers today. Trainees from their research were identified as ‘Alert Novices’ and were compared to those labeled ‘Common Sense Thinkers’. Melville, Bowen and Passmore (2011) found that ‘Common sense thinkers’ were ones who found it difficult to adopt new teaching strategies because they were over-reliant on the way that they were taught themselves. Thus, their own experience and predispositions acted as hindrances to their learning. The authors (2011: 15) cite one of the participants in their research. This participant states in his learning journal:

‘That is the way that I was taught and that is the way I am used to’.

Farrell (1999, 2008) points out that these experienced teachers should be made aware that they might be suffering from 'busy teacher syndrome' (1999: 52) and the habit of proclaiming that they are too busy to reflect on what they are doing.

The teacher cited above was not able to open up to innovation such as the suggested video-conferencing. In addition, he seemed unaware of his need to learn from colleagues' comments about his teaching; thus demonstrating an over-reliance on himself and his own experiential learning. According to this participant, the only way he could learn was through the mistakes he made. For Dewey (1933), this is an example of a lack of 'open-mindedness' because the teacher is unable or unwilling to entertain constructive criticism from others or take risks with new ideas. Without the volition to experiment, there can be no opportunity for 'responsibility' because no step towards challenge and change is made. This also demonstrates that the teacher lacks 'whole-heartedness' or enthusiasm. This lack of 'whole-heartedness' was evident on many levels. Typically, this teacher was critical of reflective practice itself. He states (2011: 15):

‘I do not know if writing a reflection actually helped me as a teacher or if it helped my lessons’.

Recent educational research undertaken by Olsen (2008), amongst others (Britzman, 2003; Cochran-Smith, 2005; Hamachek, 1999; Oakes and Lipton, 2003) has focused on this deep-rootedness. Olsen (2008: 3) states that his research:

‘...reminds us that teaching is not merely a cognitive or technical procedure but a complex, personal, social, often elusive, set of embedded processes and practices that concern the whole person’.

Olsen (2008) argues that to aid teachers to better understand themselves, teacher identity can be used as a research frame. By asking teachers to first consider who they are in relation to what they do within their complex social environments, teacher educators can make visible situated framings of their professional development in practice. These framings, as Olsen (2008) posits,

involve teachers learning to understand their own sociocultural backgrounds (age, race, class, gender and culture); reasons why they decide to go into teaching; and how their personal teaching worlds fit their shared teaching worlds; in other words, how teachers fit the school, county or country program to their teaching. This last aspect:

‘...investigates how student teachers negotiate the institutionalized roles of teachers against their own incoming identities’. (Olsen, 2008: 5)

Both are built by situated practice. The institutionalized role evolves through syllabus and material design, and meetings with colleagues; the second emerges from teaching and experiences in the work environment.

In contrast to the ‘Common Sense Thinkers’, ‘Alert Novices’ in the study by Melville, Bowen and Passmore (2011), whilst seemingly no more intelligent than the other group, were better able to engage in reflective practice primarily because they were driven to continually empathize with, absorb and improve the practice of their colleagues, and their own. One participant (2011: 11) writes:

‘I like the way Bob approached the lesson last week. It was very reform-based in nature, which is what allows students to learn for themselves. This type of learning needs to be facilitated by the teacher, but the students need time to explore on their own’.

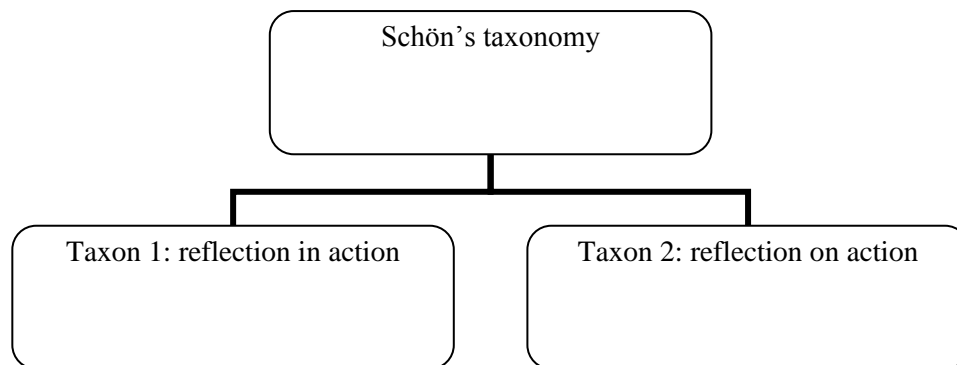
In this short, simple posting, the teacher displays ‘wholeheartedness’ through her enthusiastic attitude, ‘open-mindedness’ through her entertainment of a new teaching methodology and ‘responsibility’ by acknowledging that this new approach involves both teacher facilitation and student engagement, which might be a challenge but a welcome opportunity to engage in innovative practice. This genre of comment was highlighted by Melville, Bowen and Passmore (2011) as common among the ‘Alert Novices’. However, as Hobbs (2007) notes, this kind of ‘alert novice’ writing may be conducted because students feel that writing what their superiors view as intelligent and meaningful is sometimes more important than reflecting truthfully, as this can improve a grade or status within the group. This questions the reliability and validity of such activities.

2.2.3. The processes of reflection.

In this section, the fundamental notions of the processes of reflection are explored. To do this the model from Schön (1982), then its critics are presented. Schön's work can be seen as significant in this field as a benchmark from which to present and draw out a discussion of the important issues from the literature.

The reflective practice process carries a variety of meanings. Schön (1982) argues, as do most scholars in this field (see for example, Boud, Keogh and Walker, 1985; Buchman, 1990; Gore and Zeichner, 1991; Pugach, 1990; Smith and Lovat, 1991) that for reflective practice to take place, there is a need to step back and partake in a conscious detachment from the event. This kind of stepping back can take place relatively instantaneously, and in the short term, or over an extended time period. Mann *et al* (2009) refer to this difference in time scale by making the distinction between 'iterative' and 'vertical' dimensions of reflective practice. The iterative dimension (see Schön's notion of 'reflection-in-action') is when reflection is triggered by experience, more or less instantaneously. The vertical dimension (see Schön's notion of 'reflection-on-action') is a slower process delving into deeper realms of thought to more critical synthesis. Schön's (1982) taxonomy representing these notions is given below in diagrammatical form in figure five:

Figure five. Schön's taxonomy of reflection in action and reflection on action.



For taxon 1, Schön (1982: 68) writes:

'The practitioner allows himself to experience surprise, puzzlement, or confusion in a situation which he finds uncertain or unique. He reflects on the phenomenon before him and on the prior understandings which have been implicit in his behavior'.

It is reflection which takes place 'in action', spontaneously and rapidly as a reaction to an event.

For taxon 2, Schön (1982: 68) writes:

'We reflect *on* action, thinking back on what we have done in order to discover how our knowing-in-action may have contributed to an unexpected outcome'.

The puzzlement is allocated more time for thought for taxon 2. However, as intimated in the citation above, these two taxons are, in reality, inextricably linked. Learning 'in-action' feeds back into learning 'on-action' and vice versa in a constant interplay of reaction and reflection. Despite its worth, the Schönian (1982) model has been criticized for two main reasons. The first refers to the time frames offered; the second, the lack of collaboration involved.

Zeichner and Liston (1996) argue that Schön's (1982) in and on-action are far too simplistic. Instead, these authors offer five categories creating a complex time continuum. The continuum begins with 'rapid reflection', immediate or spontaneous action to deal with a classroom event; 'repair', a teacher responds more or less spontaneously to the event; review, a teacher reflects back on the event after the lesson; 'research', a teacher engages in reflection over a longer time span to understand the event; and 'retheorizing and reformulating', a teacher engages in long term reflection to understand the event by applying academic theories. In addition to Zeichner and Liston's (1996) continuum, Van Manen (1977) and Greenwood (1993) argue that the model fails to see 'reflection-before-action'. This is thinking about what one intends to do before doing it. This involves planning or anticipating one's actions prior to acting to find out if they emerge as intended. Van Manen (1977) describes this as 'anticipatory reflection'; Grushka, Hinde-McLeod and Reynolds (2005) call this 'reflection-for-action'. This suggests both a combination of reflection and imagination because the application of knowledge from similar events is pushed into the future through imagination as a lens through which the reflector may suggest a possible outcome to a predicted event.

The second criticism of the model is its focus on the individual as reflector (Korthagen, 2001; Ottesen, 2007; Zeichner and Liston (1996). Zeichner and Liston (1996: 18) state that for Schön (1982), reflection is:

'Largely a solitary process involving a teacher and his or her situation, and not as a social process taking place within a learning community'.

This is contrary to research on 'reflective conversation' (Crow and Smith, 2005; Goodfellow, 2000; Jay and Johnson, 2002; Osterman and Kottkamp, 2004; Richert, 1992), distributed cognition, and potential communities of practice (Cole and Engeström, 1993; Pea, 1993; Salomon 1993; Salomon and Perkins, 1998), which point out that reflections may also be group activities with issues which individuals reflect on, and later, transfer back to the group. Individual cognition therefore requires a process of reappraisal from the group to become

distributed. The resulting reflection should be ‘shared, socially-mediated activity in a cultural context’ (Salomon, 1993: 15). Osterman and Kottkamp (1993: 25) state:

‘It is sometimes difficult to develop a critical perspective on our own behavior. For that reason alone, analysis occurring in a collaborative and cooperative environment is likely to lead to greater learning’.

To go beyond the constraints of a ‘pet’ notion (Dewey, 1933), reflection should be shared practice involving a community of teachers. Sharing one’s ideals and commenting on others’ views can help interlocutors to understand themselves better and to realize that others also share the same views. As Bartlett (1990) postulates:

‘What we thought were idiosyncratic features of our own critically reflective efforts are paralleled in the experiences of many of our colleagues. We discover that what we thought was our own idiosyncratic difficulty is actually an example of a wider structural problem or cultural contradiction.’ (1988: 219)

In addition, the learning inherent in the construction of knowledge through relationships with significant others is well established and is linked to Soviet socio-cultural theory and the sharing of sociocultural practices. Underpinning this theory is the work of the eminent Soviet psychologist, Lev Vygotsky (1896-1934), who has had a profound effect on learning theory. In Vygotskian theory, there are two main functions of consciousness: the intra and inter-mental. The primary function is the ‘inter-mental’ construct, related to social connectivity with others. For Vygotsky, the reality is that learners are rarely isolated. They are more often in the company of others and benefit from this social interaction. This is because consciousness is primarily the:

‘Objectively observable organization of behavior that is imposed on humans through participation in sociocultural practices.’ (Wertsch, 1985: 187)

The process of sharing individual perspectives is collaborative elaboration (Meter and Stevens, 2000), and this leads to learners constructing understanding together which is beyond what would have been constructed alone (Greeno *et al*, 1996). Thus, constructivists promulgate that teams are able to operate at higher levels of thought. They can also remember information for longer periods than individual students (Johnson and Johnson, 1995). During the process of community building, peers aid one another to states of more developed knowledge and understanding. This process involves a dialectical building of both the individual's and the community's knowledge level or 'Zone of Proximal Development' (Vygotsky, 1962, 1978). Thus, a construction zone is present through which a scaffolding (Bruner, 1983) takes place promoting development through interaction. The construction zone is fully operative when a community of people:

'With different goals, roles and resources interact; the differences in interpretation provide occasions for the construction of new knowledge'. (Newman, Griffin and Cole in Van Lier, 1996: 12 - 13)

In other words, there is a stimulated, focused, conscious, reflective organization, control and evaluation of the input and output that result from the whole experience.

2.2.4. Autobiographical narrative writing in paper journaling.

This section will examine the traditional strategy of narrative exploration in paper journaling and present its limitations as a means to developing reflective practice in teacher education.

Autobiographical narrative writing is a well-established technique for developing trainee reflective practice (Carter, 1993; Connelly and Clandinin, 1990; Davies and Adams, 2000; Graham, R, 1991; Knowles, 1988). One of the most common strategies used for autobiographical narrative writing is paper journaling (see Ballantyne and Bain, 1997; Ballantyne and Packer, 1995a; Borko *et al*, 1997; Calderhead, 1988; Calderhead and Gates, 1993; Chitpin, 2006; Clarke, 2004; Daloglu, 2002; Hussein, 2006; LaBoskey, 1993; McIntyre,

1993; Uline, Wilson, and Cordry, 2004; Wade and Yarborough, 1996). According to Daloglu (2002), the practicum course is the most appropriate point at which to start reflective paper journaling in a pre-service teacher educator program. This, she argues, is because the field experience is taken subsequent to, or concurrent with teacher education courses, enabling participants to transfer their accumulated skills and knowledge to teaching situations.

Knowles (1988) found that paper journaling validates trainees' experiences as legitimate sources of knowledge enabling them to perceive previous teaching practices that they could unlikely repeat without this focus. Thus, the accommodation of experiential reflection content facilitates the reduction of ineffective practices. In addition, in studies with pre-service teachers, Bell (2001) and Carr and Kemmis (1986) found that reflective journal writing encouraged student teachers to develop their critical reflective content by connecting their beliefs and values to their roles as teachers. The focus for Carr and Kemmis' (1986) research was to ask trainees to transform their practices in ways that might help to move society away from unjust class, race and gender relationships. Trainers of pre-service teachers working in multi-culturally diverse conditions have more recently taken up this focus. In one such study, Moore (2006) reports positively on the use of reflective writing in aiding trainees to discover their own dispositions with regard to diversity in the classroom. This new understanding guided trainees to make their lessons more culturally sensitive and culturally relevant to their students' lives.

Despite the reports above, a significant amount of research (see Bolin, 1988; Hatton and Smith, 1995; Sparks-Langer, *et al*, 1990) reveals that the level of sophistication of reflective analysis in student paper journal writing varies widely, ranging from simple description with little evidence of reflection to a highly sophisticated dialogue through which several perspectives are explored. Two programs, during which attempts at developing reflective thinking developed shortcoming, are the Florida PROTEACH program (Valli, 1993) and the Sydney program (1991). It was found in the Florida program that student teachers during field experience practicum were much more inclined to focus on the pragmatic and immediate problems in the classroom, such as teaching subject knowledge and classroom management issues, rather than attempting to develop their reflective thinking skills, in particular 'reflection-on-action'. In addition, the Sydney program reported that very often, preconceived ideas about the nature of teaching, in particular those

learnt from one's experience as a school child were sometimes so deeply rooted that a student would resist any thought beyond simple description.

It is not surprising therefore that trainers find that free journaling (or free writing) alone is not enough to aid pre-service teacher development. Instead the guided use of reflective practice mechanisms is commonly advocated. The most common mechanisms used are reflective cycles and reflective questioning frameworks. These have been created by teacher educators for the purpose of developing in teachers a deeper understanding of themselves and their practices. They have most commonly been applied to paper journaling, and more recently, they have been used in online blogging and discussion forums, which are relevant to this study. In addition, a strategy, rather than a mechanism is presented, as it is relevant to this study. This is Socratic dialogue. The principal difference between these tools is that the cycles and frameworks are applied by trainees as entire guides i.e., they start from the beginning and follow a procedure to the end. Socratic dialogue, on the other hand, is embedded in trainees' writings and can be used after the initial procedures of reflection have been followed. Thus, it can be used to aid trainees to return to their reflections or as 'reflection-on-action' to facilitate the consideration of questions or comments made by a trainer or significant other.

2.2.5. Reflective mechanisms used in paper journaling.

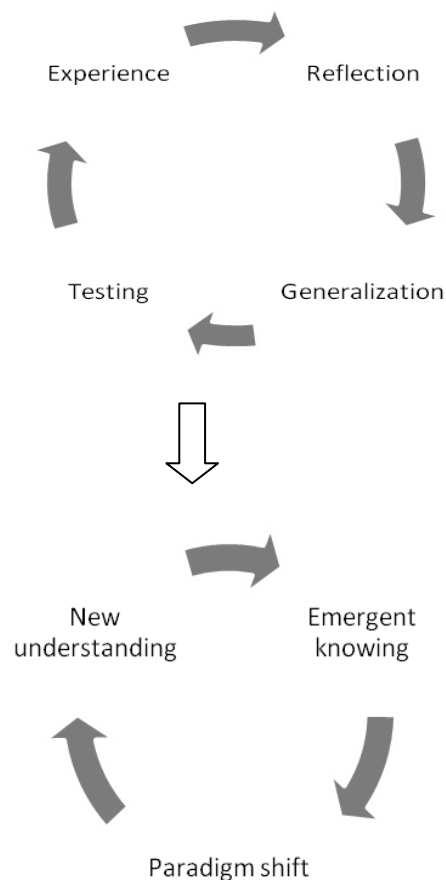
This section will discuss established reflective mechanisms such as questioning frameworks, reflective cycles and Socratic dialogue used in paper journaling to develop reflective practice in teacher education. The models selected for this research are presented and their choice justified.

There are many models used in developing reflective practice across a range of disciplines (including education, nursing and psychology) ranging from simplistic, for example, 'what? So what? Now what?' from Rolfe (2001), to more complex models such as Argyris and Schön's (1978) double loop-learning model (the one chosen for this research). Models of interest to this researcher are those offered by Argyris and Schön (1978); Brookfield (1988); Handal and Lauvas (1987); Hatton and Smith (1995); Hussein (2006); Moon (1999); Sparks-Langer *et al* (1990); and van Manen (1997). These focus users on developing a better understanding of their own assumptions. They also invite users to apply considerations of social justice to their

reflections with an aim to change the status quo. Other models of interest are from Smyth, (1989), and, in particular, Daloglu (2002), because these are composed of questions rather than solely steps or procedures. Peters' (1991: 91-95) model, for example, which describes a process called DATA consisting of four steps: describe-analyze-theorize-act, is constructed with imperatives; consequently, it is a model that is less dialogic in nature, and therefore less interactive than questioning models. Questioning frameworks are more appropriate for this study as dialogic communication is essential to the models developed (Socratic dialogue is also an essential component of this study). Finally, models from Kessels and Korthagen (1999) and, in particular, Valli (1993), are also of interest to this researcher. This is because these explicitly make the distinction between 'dialectical' reflection (Valli, 1993), where personal or experiential knowledge is used to transform or reconstruct thinking and 'deliberative reflection' (Valli, 1993) or externally driven teaching knowledge, which is often information sought from academic literature (referred to as 'capital T' by Kessels and Korthagen, 1999), or proposals from significant others, to inform practice.

Drawing on Ashby's (1960) seminal work on cybernetics, the idea of reflective cycles is that by creating a visual representation of the stages of learning, learners can be guided through the processes of reflection by moving from one stage or cognitive structure to the next. As already noted, the model used for this research to develop pre-service teachers' reflective practices was the Argyris and Schön (1978) model. It was chosen for its scope and adaptability as it was found to be combinable with questioning frameworks and Socratic dialogue. It could also be used to guide trainee reflection to critically engage with personal assumptions and promote social justice.

Figure six. Argyris and Schön's (1978) model.



The first stage of learning is the first or single loop learning cycle. Initially, a teacher environment event causes the noticing of a puzzle at the 'experience' point in the first cycle. The participant then 'makes sense' and 'makes meaning' of this puzzle during the 'reflection' stage. She then moves on to a 'working with meaning' period that occurs during the 'generalization' stage. The final stage is the 'testing' of the result of the reflection during 'working with meaning'. This is normally represented in the form of interventions in practice. The 'making sense' and 'making meaning' stages require the participant to know what happened, and to consider why it happened. This involves relatively little or minor accommodation of a new cognitive structure, as this is more or less at a descriptive level of analysis. However, the 'working with meaning' moves beyond description, thus, participants might examine past experiences at this stage and use these to shed light on why the puzzle could have occurred.

Despite a potential restructuring of meaning, with this cycle, reflection seeks to improve the status quo or the given socio-cultural context, rather than transform it. It therefore does not seek to go outside the 'governing variables' (Argyris and Schön's coined term, 1974) but to better operationalize existing values and rules within the system. These 'governing variables' are dimensions set up over time and maintained to shape the possible characteristics of a state or event. Any action will necessarily have an impact on the governing variables but the desire is to keep this impact within boundaries so as not to cause a dramatic change in the status quo. In other words, the practitioner attempts to refine practices. Often, the emphasis is on teachers seeking to improve their teaching techniques in a given situation (Usher and Bryant: 1989), not to change the situation itself. Therefore, this cycle is not open to foci on broader ethical or social issues, which might undermine the system or 'dispositions' (Bourdieu, 1984).

The facilitation of critical reflection encompassing broader issues occurs through the second cycle offered by Argyris and Schön (1978), which contains such headings as 'emergent knowing' and 'paradigm shift'. Double loop learning is transformative learning. It is the extension of single loop learning but, in contrast, reflection here is more fundamental, going beyond working with meaning within the present governing variables. Here, the basic assumptions behind ideas or policies are confronted leading to attempts at the modification of an institution or individual's underlying beliefs. As Moon (1999: 123) argues, it is the 'most advanced stage named on the map of learning'. For a trainee, there is a conscious, vivid, reliving of an experience to a rediscovering of the learning event so that a re-evaluation of that experience can occur. This re-evaluation involves standing back and re-examining old experience with new knowledge. The process of critically questioning the status quo occurs at the 'emergent knowing' stage. This may then lead to the changing of one's perspectives and the formulation of a new understanding or 'paradigm shift'. As its description suggests, this is commonly a notion that turns a way of thinking on its head, or, as the colloquial term puts it, 'a thinking outside of the box'. One clear example of a shift in perspective leading to transformative learning might be for a trainee to radically change his way of thinking to question what the students are doing in class rather than what the teacher-supervisor is doing, during a training observation. This is a dramatic change in perspective as it represents a different model to the status quo. It goes against what most observers and observation systems do and the

‘governing variables’ are no longer relevant. In other words, it brings to the fore and questions the taken-for-granted (tfgs), or habitus (Bourdieu, 1984), that exist in the educational system. As Argyris and Schön’s (1978) model can potentially facilitate this genre of consciousness-raising, it is deemed by this researcher as a good model for effectuating progressive critical reflection. The reflections based on this ‘paradigm shift’ will help to build in trainees new understandings about teaching and learning and perhaps engage them in journeys of discovery to build in themselves the attributes outlined by Dewey (1933).

Daloglu’s (2002) model.

Along with cycles, reflective frameworks are commonly used to develop reflective practice. The frameworks differ from the cycles, as they do not offer a visual or graphic representation. They do tend however to involve chronological steps in the reflective process as the cycles do. As already mentioned, the Argyris and Schön (1978) double loop-learning framework was chosen for this research. It was combined with the framework offered by Daloglu (2002) and the Valli (1993) construct ‘deliberative reflection’ to constitute the model offered to participants.

Similarly to Hussein’s (2006), Daloglu’s (2002) model is characteristically designed for pre-service trainees at an institute during block practice. That, apart from its dialogic nature was why it was chosen for this research. Daloglu (2002) notes the success of her relatively simplistic four-category framework as guidance in paper journal writing. These categories are:

What do I already know but benefited from observing/ teaching in school?

What did I not know but learnt from my observations/ teaching in school?

What would I like to implement in my own teaching?

What are my comments on and reactions to the experiences I have had?

Daloglu (2002) lists a number of issues that were raised by trainees during their practicum experience. These are observations of and reactions to their supervising teachers inside and outside the classroom; observations of how their students learnt English and their conclusions about language learning; and reflections on their own learning process during practicum, in particular what they learnt about teaching. What makes Daloglu’s (2002) model different is its

additional explicit focus on observations, not only classroom teaching. For Daloglu (2002), trainees should be involved in peer observation systems. They should also have the opportunity to observe more experienced, supporting teachers during block practice. These experiences can also have a great deal of impact in building a teacher's skills.

As a consequence of this focus on observation, the model has a dialogic characteristic: the finding out about what fellow neophytes or expert practitioners have discovered themselves as reflective practitioners, and the theories that they have built through their own discoveries. However, Daloglu's (2002) model neglects to require participants to read relevant literature in the field to gain more conceptual knowledge of the issues. Thus, the need for Valli's (1993) construct of 'deliberative reflection'. It also lacks a focus on the broader socio-political evaluations of an event and the development of an understanding of the status quo. The model therefore presupposes maintenance of the status quo and therefore merely an improvement or superficial change to the taken-for-granted. This demonstrates the need for Argyris and Schön's (1978) model.

Valli's (1993) constructs.

Valli (1993) argues that there are six genres of reflection: technical; in-action; on-action; dialectical (experiential); deliberative (conceptual and theoretical); and critical. These distinctions are common to van Manen's (1997) reflective levels. They are also related to distinctions put forward by Kessels and Korthagen (1999), who themselves were relating the Aristotelian terms 'episteme' and 'phronesis' with 'theory with a small t' (dialectical) or non-abstract knowledge tailored to the specific needs and concerns of the teacher and the concrete situation under reflection, and 'Theory with a capital T' or conceptual knowledge, which can be generalized for many situations. This notion of 'phronesis' can also be linked to Noddings' (1986 as cited in Lake, 2003) work on 'fidelity' as a part of contextualizing and modelling reflection through dialogue. For Valli (ibid), as for Noddings (ibid), one of the goals of teacher educators is to confront trainees with practical strategies and theoretical content to be analyzed and discussed critically. Therefore, when analyzing a practical problem in the field, the application of theoretical perspectives is needed. Conversely, when examining an educational principal or standard, implications for practice need to be generated and explored. As Noddings

(1986) argues, this is an essential part of the relationship between the teacher educator or the ‘one-caring’ and the teacher trainee, or the ‘one-cared-for’, and helps to develop a caring, educational environment, which it is hoped, will in turn be reproduced by trainees in their classrooms.

2.2.6. An intertextual mechanism for developing reflective practice.

The importance of giving teachers feedback on their reflections is reported by Hattie (2003, 2007) who states that its role is to fill the gap between what is understood and what is meant to be understood. Winnie and Butler (as cited in Hattie, 2007: 82) state:

‘Feedback is information with which a learner can confirm, add to, overwrite, tune, or restructure information in memory whether that information is domain knowledge, metacognitive knowledge, beliefs about self and tasks, or cognitive tactics and strategies’.

Socratic dialogue is a technique that has been developed in distance education through Holmberg’s ‘Theory and Practice of Distance Education’ (1989), Laurillard’s Conversational Model (1993) and more recently by Ros, Solé and Truman (2007) for giving feedback. Unlike the cycles and frameworks analyzed, this strategy is therefore most often used after reflections are conducted.

The term appears to have its origins in Ancient Greece through Plato in the Socratic Dialogues at the turn of the fourth century BC. In the Socratic Dialogues, the Sophists would seek the truth about a matter by rationally working together to study each other’s views. To do this, they practised the Dialectic Method, which is a form of dialogue, very much different to debate: those in dialogue were not so committed to their point of view that they were trying to win the debate; rather, they were seeking help from each other to see their points of views from other standpoints to better understand the topic of discussion. If their interlocutor could help them to understand the weaknesses of their judgments and beliefs, they were grateful to them. As noted, the ultimate objective was to understand the truth of the matter not to persuade an opponent.

Socratic Dialogue is an intertextual technique for developing reflective practice. Using Socratic dialogue in the online environment, participants can interact with each other or a tutor through asynchronously conducted written discussions. In other words, participants offer their reflections to a peer or tutor and these receive questions, comments or prompts, which are embedded in the text at a given, relevant point for a dialogue to be created. These questions and comments are then answered and added to by the original author. The process can be relatively short with a limited number of interactions or relatively long with numerous phases of interaction, over a greater time period, with the aim of instilling reflection about the points made.

Socratic dialogue is said to be a democratic form of dialogue. Bakhtin (1984b: 293) writes:

‘The single adequate form for verbally expressing authentic human life is the open-ended dialogue. Life by its very nature is dialogic. To live means to participate in dialogue: to ask questions, to heed, to respond, to agree, and so forth. In this dialogue a person participates wholly and throughout his whole life: with his eyes, lips, hands, soul, spirit, with his whole body and deeds. He invests his entire self in discourse, and this discourse enters into the dialogic fabric of human life, into the world symposium’.

It is Bakhtin (1990) who first made the distinction between ‘Magistral’ and ‘Socratic’ dialogue. Magistral dialogue is the common notion of writer-reader relationships. It presupposes that the writer is offering new knowledge to the reader. This presupposition is however, not warranted as the writer more often than not, does not know what the reader knows, or what the reader will find to be new or engaging. Magistral dialogue represents a system of interlocutors who have asymmetries in knowledge and power. It is the relationship between the one who knows and the one who needs to know. In contrast, Socratic dialogue is a more open-ended kind of dialogue. It may start in the same way as magistral writing but after the first reading, the text becomes a mutually constructed body of writing, personalized for, and shaped by the readers through the interjections made. Thus, according to Gustafson, Hodgson and Tickner (2004), unlike magistral

dialogue, the aim of Socratic dialogue is not to reach a predetermined end, as is often the case with magistral dialogue. In addition, with Socratic dialogue, the interlocutors are not distanced from each other; they are involved in creating conditions for intimacy, and experiencing difference as something productive and essential.

The ‘discount categories’, below, represent an exploration of the different types of embedded communications that a trainer may choose to use when engaged with trainees in Socratic dialogue. These are referred to as ‘moves’. These moves are based on the DISCOUNT coding system developed by Pilkington (1999; 2001). In her research with student teachers, Walker et al (2004) found that the most common types of move were probe (asking questions to elicit more information from a student) and challenge (questions to encourage a student to justify an opinion or argument). In their conclusion, they state that ‘probe’ moves followed by ‘challenges’, used in sequence, appear to be particularly successful ways of guiding students to develop an argument thread in their reflections and go beyond the descriptive. They also argue that ‘counter’, although used relatively little in their study, might be effective in furthering the discussion as long as students perceive this as a hypothetical ‘game tactic’ (2004: 181) rather than as a strong critique or even a correct answer. The following are the ‘moves’ presented:

Table one. Walker et al's (2004) discount categories based on Pilkington's (1999, 2001) coding system.

	Discount categories
Move	Description
Open	Start a new topic or sub-topic
Instruct	Provide information that constitutes a teaching point
Probe	Ask a question to elicit more information about a fact or opinion
Challenge	Ask a question to elicit a defense of a line of argument
Counter	State an opinion or ask a question containing an alternative line of argument
Inform-fact	State a fact
Inform-opinion	State one's personal opinion
Encourage	Monitor progress and give encouragement and/ or positive feedback
Critique	Give constructive criticism
Ask/clarify	Ask a clarification question
Metastatement	Ask a question or make a statement about the task (rather than the topic)

To refine some aspects of Socratic dialogue, Fairclough (2003) states that modalized declarative clauses (i.e., those including 'may'; 'might' and 'could') embedded in the text are preferable to non-modalized language. Non-modalized language in declarative forms is often closed to interpretation; being more commanding than suggesting. What non-modalized language could do if it comes from a tutor is to reinforce the distance between the reader and the writer accentuating the authority in the relationship. Modalized language as part of the declarative form of Socratic dialogue, along with the other moves put forward by Walker et al (2004) above, can thus be considered as an encouraging, non-judgmental, non-authoritative form of communication. Socratic dialogue, Valli's (1993) construct of 'deliberative reflection', Daloglu's (2002) reflective framework and Argyris and Schön's (1978) double loop learning model are all quintessential to the online exploration to develop student teachers reflective practice conducted for this research.

2.3. Section two outline.

This section will

- discuss the use of technology particularly online blogging in fostering reflective practice in teacher education;
- examine constituents of a community of practice (COP) and what is required to set up a small, time-limited, task-based COP;
- discuss constructivist educational theory and how this relates to the development of reflective practice through online blogging and discussion;
- analyze characteristics of a COP such as asynchronous communication and vicarious learning and how these might foster reflective practice.

2.3.1. Technology to foster reflective practice in teacher education.

Technology used to foster reflective practice can be distinguished between one-way and two-way communication resources and this can be linked to the notions of dialogic and monologic communications as some resources are available as information transmission sources, others are set up to provide platforms for communication between stakeholders about issues important to their teaching and learning. An example of an established online transmission and dialogic resource available for teacher educators and trainees to consult is a mini constellation of UK websites set up at Bath Spa University termed 'ITSLIFE' (<http://www.itslifejimbutnotasweknowit.org.uk/index.html>). This resource offers learning activities such as downloadable videos from experienced and trainee teachers who are reflecting on classroom experiences. It also provides links to useful readings and other websites. There are also forums available for stakeholders to share and discuss ideas and opinions.

Online blogs are reported to be an effective method for the establishment and maintenance of an online community of practice (Luehmann, 2008; Stiler & Philleo, 2003; Yang, 2009). Online blogging tools and discussion forums, moderated by a teacher educator, are commonly available today as part of a Virtual Learning Environment such as Blackboard or Moodle, or as part of networking or blogging programs such as 'Facebook', 'blogger.com', 'twitter' or 'wikispaces.com'. One of the key characteristics of these two-way communication resources is asynchronous computer-mediated communication. These resources are seen to facilitate

interactive learning (Arnold and Ducate, 2006; Richardson, 2005) and to enhance trainee teachers' reflective practice (see Crawley, 2011; Davis and Roblyer, 2005; Gleaves and Walker-Gleaves, 2010; Lock, 2006; Murillo, 2008; Salazar, Zenaida Aguirre-Munoz, Fox and Nuanez-Lucas, 2010; Simpson, 2006; Yang, 2009). A virtual learning environment (VLE) such as 'Blackboard' or 'Moodle' is similar to a weblog or blog in that participants can upload postings to the forums online at any time and from any location as long as there is a connection to the Web. In addition, media uploads such as audio/video stream, photographs and lesson materials can be added to support postings. Most postings are journalistic in the same way that a personal journal is used. In contrast, using a VLE, the postings are quasi-open and can only be read by members who acquire access to the site and who share common goals. This is unlike a weblog such as 'blogger.com', which can be openly accessed through a web search on the Internet. There is thus some privacy when using a VLE forum such as that offered by 'Blackboard'. This researcher has found that as there are only a few selected members on each site (eight), these VLE discussion forums can be exploited as collaborative online journals, which serve as a basis for discussion between members and their tutor (see also Godwin-Jones, 2003; Richardson, 2005). A blog of this nature thus becomes a mini-learning community as members share narratives and discussions. What develops has been described as an online community of practice or COP.

2.3.2. The online community of practice (COP).

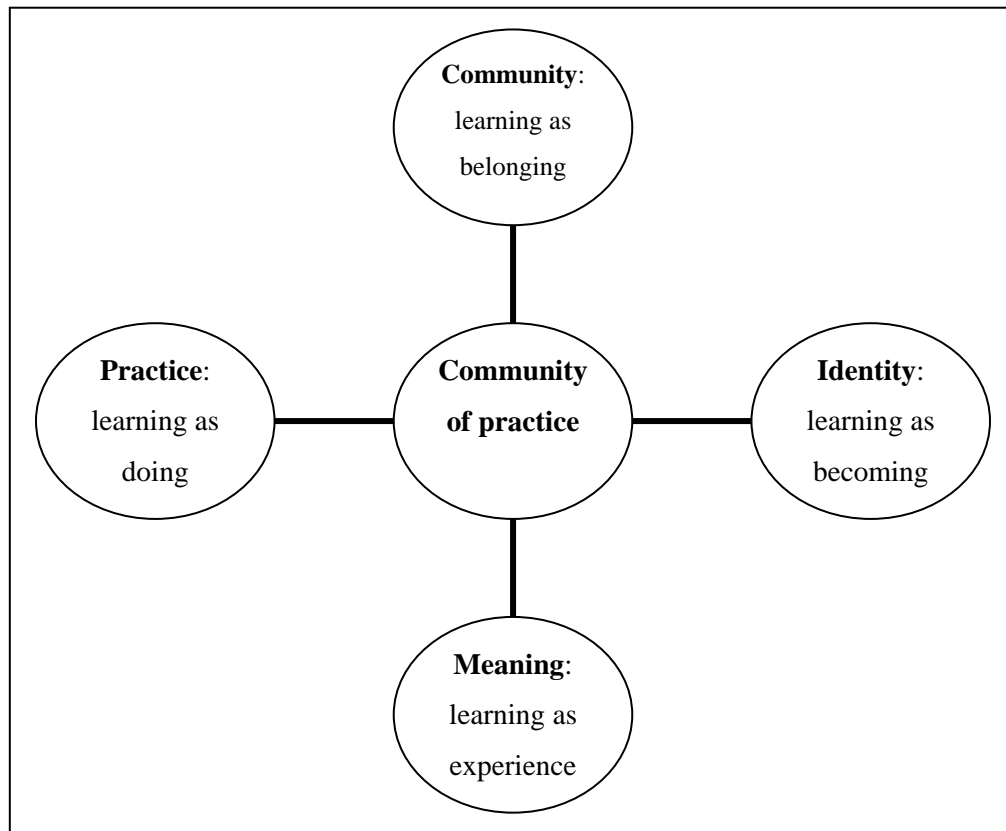
The online COP is a ‘sustained network’ (Reil and Polin, 2004). However, COPs that are fairly small in size and join for a limited time and for a specific outcome have been described as ‘task-based communities of practice’ (Riel and Polin, 2004). This is the description that best suits this research. Saint-Onge and Wallace (2002: 4) define a community of practice as a group of people who

‘...share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.’

As the COP develops, online peers’ observations are said to progressively intensify (Anderson, 2004). This is also due to the increasing awareness that these participants will themselves be later expected to participate in observed practices. As full participation with significant others grows, an ‘educative community’ is developed based on dialogue. A communal identity is born which represents certain ideals and notions about practice, which are shared. This community has been reported to thrive (Dubé, Bourhis, & Jacob, 2005). As the group matures, there then begins a depersonalization of the self because the group or community, than their selves, defines individuals more. As this develops, individual motivations to learn become increasingly derived from the need to carry out the activities of the group. This has been termed ‘learning to become’ (Mayes, 2002) or ‘self-categorization theory’ (Turner, 1991).

Wenger’s (1998) framework is commonly agreed (Saint-Onge and Wallace 2002; Plaskoff 2003; Thompson, 2005; Lewis and Allen, 2005) to be the most developed theory regarding the components of a successful community of practice. According to Wenger (1998), a COP is constructed by the building of four main components: community; practice; identity; and meaning. These are presented below in diagrammatical form (figure seven):

Figure seven. Wenger's (1998) four main components of a community of practice.



'Community' refers to online collaborative and social learning. According to Wenger (1998), construction of meaning through discussion is essential in understanding reality. Through understanding and accommodating the views of others, there should be quality and depth of learning. 'Practice' refers to the notion that participants must be actively discussing domain-related practices and material online. This gives rise to a more authentic appreciation for, and understanding of, the content being learned. 'Identity' means that learners must feel ownership for the online content of the forum and its development. Participants must be active online from the outset and acknowledge that their peers' efforts are also very relevant to their real-life learning contexts. 'Meaning' refers to the notion that there should be moments of thinking about why things are done online, and evaluating their significance for future practice. In other words, a development of 'meaning' is an understanding of the benefits of the online community and how it can engage and facilitate personal and group development. Wenger (1998) argues that these components should be present if the online environment is to become an effective COP,

offering rich learning for all involved. Thus, interventions that facilitate the growth of these components are important in optimizing the functioning of the COP.

2.3.3. Constructivist educational theory.

The notion of distributed cognition (Salomon, 1993; Vrasidas & Zembylas, 2004) argues that new knowledge commonly emerges through interaction. The process of sharing individual perspectives is ‘collaborative elaboration’ (Meter & Stevens, 2000), and this leads to learners constructing understanding together which is beyond what would have been constructed alone (see Chen, 2012; Greeno *et al.*, 1996; Ritchhart, Church, & Morrison, 2011). Thus, constructivists promulgate that teams are able to operate at higher levels of thought due to the processes of sharing knowledge and expertise. They are also said to be able to remember information for longer periods than individual students (Johnson & Johnson, 1995) as discussions result in change as ‘an ongoing, collective responsibility’ (Opfer & Pedder, 2011: 385).

2.3.4. Transactional distance, asynchronicity and vicarious learning.

As research (Efimova and Fiedler, 2003; Godwin-Jones, 2008; Loureiro-Koechlin, 2010) reveals, the freedom to move through the forum postings or the content of a course, and to be able to step back if an unknown topic is being discussed, and read about it, before participation, is a significant advantage to online learning. ‘Transactional Distance’ (Moore, 1993) seeks to describe the distance between stakeholders and the content of a course. It was first used as a term to describe the distance postal courses in the US and Australia in the 1950s and 60s. However, these distances have also been applied to online learning models (see Anderson and Garrison, 2004). For Anderson and Garrison (2004), there are different types of online interaction that represent a form of transactional distance. Common forms of interaction where distance exists in a learning model online are student-student; student-teacher; student-content; teacher-teacher; teacher-content; and content-content (Anderson and Garrison, 1998). Anderson (2008) has more recently described this as the freedoms of ‘relationship’ and ‘media’ that online learners enjoy. To benefit from the freedom of media in an online environment, users are able to select the kind of content that they wish to focus on, including the media-type, depending on their needs and capacities. They may choose to record oral monologues if they desire, instead of written

postings. This is sometimes useful if there are time constraints or if discussing the teaching of aural skills. Participants may also add media links and upload video or academic papers as artifacts to support reflections. Participants also enjoy the ‘freedom of relationships’ in an online environment. They are able to choose the kind of partnerships that they find appropriate with other participants: they may choose to take on roles such as collaborator; group leader; researcher; presenter; or merely observer; or a mix of any of these at different stages in the lifespan of the community, depending on how involved they are at any one time. In a cohort, this freedom allows members to take a leading role if and when they feel more confident. In contrast, a member who sits out during a period online should feel less pressure than one who is participating in face to face communication with significant others.

Another benefit to online learning models is being able to write and communicate at one’s own pace. These are aspects of ‘asynchronicity’. Garrison (2009: 2) explains, asynchronous writing has the:

‘... properties to support higher-order learning and create the cognitive presence congruent with deep and meaningful learning outcomes’.

As participants have more time to reflect on how they interact with others, and what they say to others, higher-order communicative content is created. This content can contain deeper analysis and more meaningful messages than that derived from synchronous interaction. Further, the reading of this discourse can lead to what has been termed ‘vicarious learning’ (Bandura, 1986) or ‘legitimate peripheral participation’ (Lave and Wenger, 1991), in which inexperienced individuals are included in roles of limited responsibility while they work to master needed community knowledge and practices in order to reach full participation. This is therefore the learning of new knowledge by observing other learners and their interactions. Unlike journaling that is most commonly conducted as one to one private interaction in an online environment, participants can share postings. The value of another person’s perspective, usually gained through interaction, is a key learning component in constructivist and social learning theories (Cochran-Smith and Lytle, 1996; Jonassen, 1991).

Research into COPs has also explored how these online environments lead trainees to develop professional teacher identities through dialectical processes (Britzman, 2003; Danielewicz, 2001). Jaffe, Moir, Swanson and Wheeler (2006) found these online environment characteristics to be highly effective for developing reflective practice. In addition to the deeper, more heartfelt discussions that individuals were constructing, members who were not necessarily active online, were reading and thinking deeply about the dialogues of other participants in the group. These researchers report that many users were doing far more reading than responding: for every forty-seven messages read by a participant, there would only be three postings. Further, Jaffe, Moir, Swanson and Wheeler (2006) found that the vicarious learning that took place was both conscious (explicit) and unconscious (implicit). The authors (ibid: 104) conclude that interviews with participants revealed that they were:

‘...reading and thinking about the discussions regularly and they could describe specific ways they applied the information in their classrooms.’

As far as the development of reflective practice in pre-service trainees is concerned, these notions have important consequences for training.

2.3.5. Setting up and developing a community of practice.

According to Damore & Murray (2009), Hadar and Brody (2012) and Murillo (2009), the breaking of isolation in the group and a high volume of participant interaction are necessary traits in the development of a COP. In order for this to happen, the trainer/ moderator should encourage trainees to take risks and to immerse themselves in acts of dialogue with collaborators in order to maximize learning opportunities. Hadar & Brody (2012) identified four significant components in the group development process. ‘Breaking of isolation’ was the first stage, during which participants deepened their relations. The second was ‘talking about student learning’, during which participants engaged in discourse and constructed meanings. The third, ‘improvement of teaching’, included more in-depth discussions on classroom implementation and collegial reflection. Finally, the fourth stage ‘professional development’ included higher order thinking about issues and feelings of efficacy.

There is however, little about methods or strategies as to how an online moderator can help to set up and facilitate the growth of a COP for teacher development. At one extreme, Renninger and Shumar (2002) explain that the growth of their site ‘TAPPED IN’ occurred naturally without online moderator intervention. Salmon (2000, 2004) and Lewis and Allen (2005) offer some indication to moderators about how to proceed in the process of setting up and building a community of practice. For example, Salmon (ibid) explains that in stage one ‘Access and Motivation’, a moderator should upload a ‘welcoming and encouraging’ message; next, to begin the ‘online socialization’ stage, a moderator needs to invite others to introduce themselves. This is what Salmon refers to as ‘familiarizing and providing bridges between the cultural, social and learning environment.’ However, although Salmon’s model offers some guidance to the online moderator, this is limited. Byington (2011) offers more guidance for the online moderator to start up an online COP through blogs such as those found at blogger.com. She advises that it is important to first ascertain the levels of expertise of each member. Once done, setting up rules of engagement is important. These include making explicit the etiquette desired for shared practice and knowledge exchange. She then moves on to discuss the attributes of successful online COPs. These are ‘leadership’ (a small team should be given responsibility to lead the forum management); ‘topic relevance’ (the forums need a clear topic and purpose); and supportive environment (establishing trust and rapport are essential). However, she only states that it is important to start by writing out a document for the rules of engagement; doing a ‘getting to know you’; allowing time for members to familiarize themselves with the technology; and identifying leaders to manage the site. Similarly to Salmon (2000, 2004), she does not actually state in detail what was done or report on the effectiveness ‘in action’ of these moderator activities.

From this researcher’s point of view, an online COP moderator model is required with a high-level of learner trust early on (Hildreth & Kimble, 2008) which can bridge the gap between a dispersed group (Kaulback & Bergtholdt, 2008; Klein & Connell, 2008; Mitchell, McKenna, & Young, 2008) particularly if little time is given for online COP incubation and participants are required to share and comment on reflections about their teaching practice experiences from the outset. The difficulty of developing participant interaction has been a recognized issue since the beginning of educational practice online. As Kollock (1998: 58) explains:

‘The key challenges the Internet community will face in the future are not simply technological, but also sociological: the challenges of social interaction and social organization. This is not to diminish the difficulties of creating new technologies, but rather to emphasize that even these tasks will pale beside the problems of facilitating and encouraging successful online interaction and online communities.’

It is no easy task to encourage participation. One of the main reasons for this is the notion that there is more distance between participants when engaged in online interaction compared to that during face-to-face relationships. This brings up the concept of online social presence (Anderson *et al.*, 1998; Anderson, 2004, 2008), which needs to be nurtured if online interactions are to grow and become increasingly heartfelt in order to describe affective components of the classroom experience, analyze past experiences and grow to understand one’s beliefs about education and society (Yang, 2009).

Different learners participate in their own individual ways online with varying levels of involvement but all play a key role in the overall construction of the site. As learners increasingly interact, they move away from a peripheral role (primarily interacting with the educational content on the site) to being central community members (interacting with content but also interacting more or less fully with significant others). With this process, participants’ online social presence grows, and the community expands. There is a symbiotic relationship between the individual and the group: both feed from each other and enable each other to develop (Hadar and Brody, 2012; Hildreth & Kimble, 2008; Mitchell *et al.*, 2008; Yildirim, 2008). It is thus no surprise that results from Wang and Newlin’s (2002: 21) study of COP practice explains that high levels of social presence are directly related to the development of intrinsic motivation and participant satisfaction online. If social presence is to be developed in order for a community to grow, learners need to be encouraged and supported in collaborative activities. However, at the beginning stages of an online COP, participants may be reticent to

communicate if they have had little or no previous experience in this field of communication or if they are dispersed and not acquainted (Klein & Connell, 2008; Mitchell, McKenna, & Young, 2008). This is particularly salient to the online task-based communities that exist for a short time frame only, often merely a matter of weeks. Therefore, it is probable that strategic e-moderator interventions are required at the beginning of the COP's lifetime or what Lewis and Allen (2005) term the 'incubation stage' to help to encourage participants to use the site effectively and to increasingly develop shared purposes or goals (Hara, Shachaf, & Stoeger, 2009).

Further, once the COP has been developed and online discussions are taking place, recent research from Salazar *et al.* (2010) and Yang (2009) demonstrates that the depth and length of critical reflection online can be problematic. Yang (2009) found that instructors could promote some critical reflection using the blog tool and that the participants in her study felt more able to be critical with peers' postings online in comparison to face to face discussions. However, Yang (ibid) along with Salazar *et al.* (ibid) reports that more research is needed on how tutors can use ICT to stimulate and motivate the development of higher levels of reflective practice, especially critical reflection.

2. 4. Chapter conclusion.

In this chapter, reflective practice in teacher education has been examined, in particular the nature of it in relation to Dewey's (1933) influential writings on the subject of essential teacher attributes. 'Whole-heartedness' can be achieved if a teacher strives for 'openness' and 'responsibility', and these are juxtaposed with 'mental sluggishness' and a reliance on 'pet' notions. In addition, the vertical and iterative dimensions of reflection-on-action and reflection-in-action (Schön, 1983) have been analyzed and a more complex time frame continuum presented including 'anticipatory reflection' (van Manen, 1977), and several retrospective periods for 'reflection-on-action'. The notion of reflection-on-action led to an examination of mechanisms in the form of cycles and frameworks that can be used to guide reflection through narrative, autobiographical exploration. Those of interest, particularly Daloglu (2002), Valli (1993), and Argyris and Schön (1978), in addition, to the strategy of embedding questions, comments and prompts in the form of Socratic Dialogue were presented. These tools are potentially effective for developing teacher reflective practice, a component that was argued needs to take on a stronger role in initial teacher education spheres.

Following this, the online environment was presented and examined, and its potential for developing teacher reflection demonstrated. The main points were that asynchronous communication leads to more reflective communication. In addition, many users learn vicariously. This potential stems from inherent characteristics resulting from transactional distance, which enable different types of freedoms in time and space and provide opportunities for deeper levels of communication and knowledge construction through online social interaction. Finally, this chapter revealed notions about setting up and developing a community of practice and looked at possible problems regarding this. It also presented research in the field of fostering teacher reflection online and the difficulties faced by these researchers.

The next chapter concerns the research methodology used for this study: the research design is outlined; the theoretical frameworks chosen presented; the context and setting of the research given; the participants and data collection tools described; the structure of the research explained; and ethical considerations explored.

Chapter Three

Research Methodology

3.1. Chapter introduction.

This chapter is divided into eight sections.

Section 3.2 outlines the research design of the action research and explains what the purpose, objectives and questions stemming from the objectives were. It also describes how each question became one or several research cycles during the case studies conducted.

Section 3.3 explores the theoretical frameworks of the study. It looks in particular, at the ideas related to reflective practice, which frame this research. It also presents this researcher's beliefs about the significance of action research as a living, changing combination of theory and practice, which makes it a unique approach.

Section 3.4 examines the research methods used; in particular it presents the fundamentals of action research methodology conducted during the case studies and how this methodology fits with the theoretical and practical paradigms of the research.

Section 3.5 discusses the context and setting of the research. It answers the following questions: in which setting was the study conducted? What sort of institution is this? What kind of educational setting is it? What is the student group chosen for analysis? Who were the participants? What was unique or important about this group that made them worth studying?

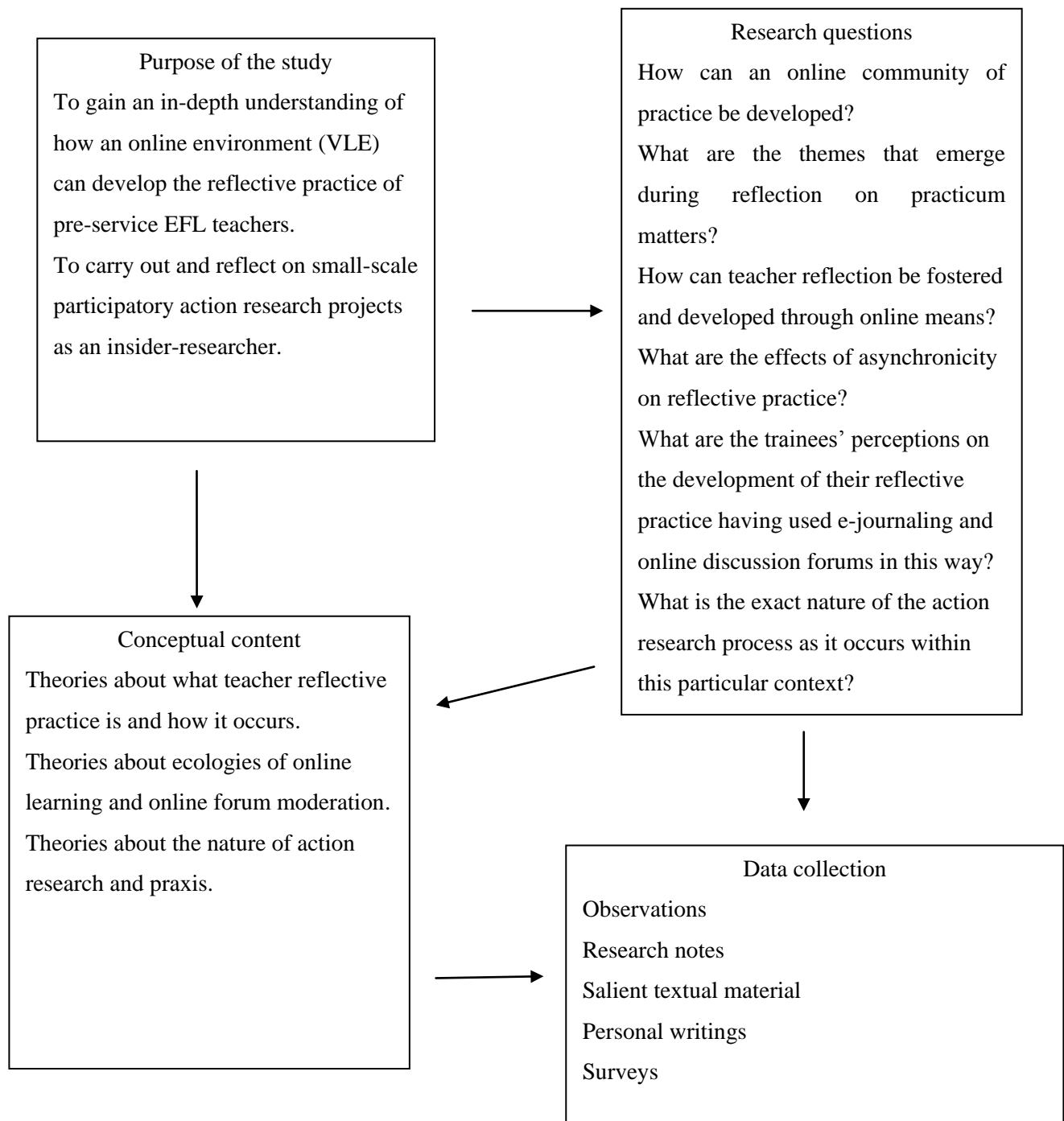
Section 3.6 presents the data collection tools and the sources of data. It also describes the time frames of the research; how participants' access to the online platform was managed; and how often participants used the platform. Having done this, this section goes on to group the data sets and to present the inter-rater reliability achieved for this grouping. After that, a justification why each group is important in methodological terms within the action research process is offered. For this, there is a section on reflective journaling: how this was designed and structured, and how this relates to the research paradigm. There is also a section related to the end of case study survey questions; and why these were conducted.

Section 3.7 explores the notion of reflective data analysis and describes why this study is structured how it is. It thus presents how reflective data can be analyzed and discusses the merits of life-story work and the application of autobiographical approaches to qualitative research.

Section 3.8 presents the ethical considerations of the study. It presents the ethical dilemmas especially significant to this study as this is action research and was part of this researcher's everyday work. The following concepts are explored: credibility and transferability; dependability and confirmability; and limitations of the study.

Section 3.9 sums up and concludes the chapter.

Figure eight. Expanded representation of the whole study.



3.2. The research design.

The study was initially borne out of practical necessity. As supervisor to pre-service trainee ESOL teachers, this researcher found early on with reflective portfolios from prior cohorts that his students lacked skills in reflective practice. This was due to two main factors, which are both related to a lack of training in reflection. First, trainees often focused merely on the pragmatic and immediate problems of the classroom such as classroom management strategies. Their reflections did not go beyond this to include broader critical perspectives about how education is linked to societal issues. Second, trainees were not aware of models of reflection mechanisms such as questioning frameworks and cycles as guiding processes that could help to facilitate deeper levels of consciousness.

After focused reading on the content and processes of reflection, it became apparent that an online virtual learning environment's (VLE) discussion forum, such as that offered by Blackboard, might be an effective tool for the facilitation of critically engaged collaborative reflection. As already noted, in the last five years, it has been growing rapidly in teacher training in reflective practice (Davis and Roblyer, 2005, Galanouli and Collins, 2008; Murillo, 2008); Simonsen, Luebeck and Bice, 2007, 2009; Yang, 2009). Therefore, this researcher also decided to experiment with and explore the system.

The main purpose of the study was **‘to gain an in-depth understanding of how an online environment (VLE) can develop the reflective practice of pre-service EFL teachers’**. The most common method used to develop trainee reflective practice has been book journaling or paper reflection portfolios. This technique is, however, quite limited. In line with constructivist thinking, this is so because it is primarily conducted as a closed, individual activity. Peers are rarely able to read and respond to reflections building shared meaning collaboratively. This also brings up another criticism of this technique, which is that it is primarily product-oriented. This was certainly found to be the case in this researcher's context. At worst, reflection portfolios were handed in as assignments are before an agreed deadline. At best, one draft version was given in to the supervisor prior to the deadline for feedback. Proceeding from the study's purpose, the research had the following principle objectives:

1. To examine how an online community of practice can be set up and developed;
2. To examine the nature of reflective practice in a diverse teaching community;
3. To examine the efficacy of an online environment's e-journaling and discussion forums for the development of reflective practice;
4. To examine how e-journaling and discussion lead to change in reflective capability.

In order to meet these objectives, the following questions were asked during the study:

How can an online community of practice be developed?

What are the themes that emerge during reflection on practicum matters?

How can teacher reflection be fostered and developed through online means?

What are the effects of asynchronicity on reflective practice?

What are the trainees' perceptions on the development of their reflective practice having used e-journaling and online discussion forums in this way?

In addition to the overall purpose, objectives and questions, there was a parallel and continuous reflective commentary analyzing the process of the action research of the study. This reflection examined how the action research paradigm could inform and guide this practitioner to achieve the purpose. The ongoing question with regards to the research paradigm conducted throughout the study was **what is the exact nature of the action research process as it occurs within this particular context?**

The research was carried out through trial and error cycles as a process of discovery. For each case study conducted, there were several research cycles involved. These cycles became more sophisticated as this researcher learned how to develop his practice as online moderator and field experience supervisor. Thus, based on observations of participants' postings and experiential self-learning this researcher found that his practices were continuously refined. The interventions carried out throughout the action research cycles were thus grounded in hypotheses constructed by careful analysis of outcomes and focused reading. The research began as an open-ended project to observe the nature of the online environment and how this might facilitate reflective practice. Thus, for 'facilitating interaction', which formed cycle one below, the question was initially to find out if interaction could grow online 'organically' i.e., without moderator

intervention. In addition, during the ‘pre-intervention stage of case study one’ below, when the forums were underway, the initial act was simply to ask trainees to apply Argyris and Schön’s (1978) double loop learning graphic and to observe how effective this was; again, a very open-ended task. However, both of these tasks were evaluated as ineffective based on observations and thus action was required. In this way, this researcher could be confident that interventions were not causal of outcomes. In the same way, each intervention effectuated occurred because it was observed that there was a need to act. This is clearly shown in the detailed diagram representing the research process in figures nine and ten in this chapter.

Decisions about how to develop the reflective practice of participants were thus made based on empirical observations of the nature of participant interaction online as well as content analysis of participant reflections. The results reported were obtained not as a single experiment; for example, answers to research question one are reported from a different case study to answers from research question three. Some answers reported are the result of all three case studies while some stem from only one case study, which might have worked particularly well in a certain field. Thus, these smaller cycles can be seen to be part of a larger scheme of cycles, which exists both within each case study as well as across all case studies conducted to create a complex interwoven spiral of research observations, planning and implementation. The final model in figure ten can thus be seen to be a conglomeration of the activities conducted over a period of eighteen months working with trainees.

3.2.1. The action research cycle – preliminary plan.

A preliminary plan on how to conduct the case studies was constructed. This would involve two principle cycles. The first would consist of making the online sites productive by building interaction online and encouraging regular e-blogging and discussions. The second would involve the process of developing reflective practice. The two cycles are described below and the research questions predicted are presented.

Cycle one: facilitating interaction.

The principle research question at this stage was *how can an online community of practice be developed?* To ascertain an answer, it was decided that an initial email (see figure eleven) should

be distributed to participants stating how they could benefit from using the site through writing down accounts of their experiences and sharing these with significant others. This email would also set up protocol. It would ask them to use the site at least three times a week and to read the discussions and/ or reflective updates of their peers. They would also be asked to upload a reflective journal posting of significant length (at least fifty words) once a week. This would inform and motivate participants. The first research cycle would then be to observe if participants would use the online platform to upload postings about experiences during block practice and whether they would conduct discussions related to these. If there were limited use of the forums at this initial stage, a moderator intervention would be required. The interventions at this stage would involve the creation and running of activities to engage users and enthruse them to be active online. To do this, reading and exploration by this researcher would lead to notions on how to set up and maintain communities of practice.

Cycle two: initiating reflection.

Once the community of practice had been established, the research could move on to the question of initiating reflection. The following research question would be asked at this stage: ***how can teacher reflection be fostered and developed through online means?*** This second cycle would involve asking students to apply their thoughts to a graphic construction provided by Argyris and Schön (1978). This researcher would email the model and ask participants to use it for their portfolio reflections. If participants found this problematic, interventions would be required. The effectiveness of the reflective mechanisms applied was informed by the question ***what are the themes that emerge during reflection on practicum matters?*** In fact, this and the following research question: ***what are the effects of asynchronicity on reflective practice?*** were working in tandem throughout the whole time frame of the study to inform the question: ***how can teacher reflection be fostered and developed through online means?*** If themes fell into categories ‘self-awareness and self-evaluation’ or ‘discussing broader issues’, this demonstrated effective use of the single and double loop learning mechanisms applied. If use of Socratic dialogue could improve trainee online reflections, this demonstrated that asynchronicity could be exploited to develop reflective practice.

Cycle three: report on system using participant feedback and research reflections.

The final step in the research plan would be to ask participants from each group to answer a set of questions at the end of the case study to find out about their perceptions of the system constructed. Thus, the following question would be asked: *what are the effects of using online blogging and discussion forums on the trainees' perceptions of the development of reflective practice?* Five questions were designed to ascertain the response to this. Each question was an important one for this researcher; not only for the final results of this research, but also because these would be used to inform the following case study. Participants wrote the answers to these questions privately and asynchronously.

3.2.2. Theoretical framework of the research.

The theoretical framework of this research focuses on the importance of praxis, the combination of theory and practice. It demonstrates how reflection and action co-exist, and how this co-existence develops over time through experiential learning. Thus, thought and action are in constant interplay. It is this researcher's view that a practitioner's actions do not exist outside the propositions that shape his understanding of his world. Proposition and practice are mutually constructed over time. As Whitehead (1989) argues, for the practitioner in the field, practice gives form to ideas and these may grow or decline through practice. Thus, it is not theory that informs practice but 'theorizing' (Winter, 1987). Woods (1996) argues that this recognition of the complexity of reality has greatly influenced methodological discussion in educational research. Hammersley and Atkinson (1995), using the field of ethnography, expostulate that it is the 'reflexivity' of our consciousness that is exposed when we try to understand reality through 'theorizing'. Our understandings are therefore interpretations: no meaning is solely related to the facts alone. This makes research a construction of a living, changing combination of theory and practice. It also means that, for this researcher, the key to this research is not in its methods or research tools but in its action for living change.

It might be argued that in research, there is still too often a visible gap in TESOL between applied linguistics and the pedagogy of the classroom with theoretical papers more prominent than practical case studies. This is because as López-Pastor, Monjas & Manrique (2011) and Varga-Atkins (2008) argue; there is still a preference in educational establishments (i.e., schools

and universities) for the positivist culture of quantitative numerical targeting. According to these authors, these methods predominantly aspire to prove cause and effect between educational practice and assessment scores. This creates a 'hierarchy of credibility' (Altrichter, Posch & Somekh; 1993: 202), which tends to distrust researchers-as-practitioners and creates a theory-practice separation. Consequently, as Van Lier (1992) argues, theory and practice (praxis) are not perceived as 'integral parts of a teacher's practical, professional life' (1992: 3). This research seeks to eliminate this divide by making the research about daily life and by finding ways to improve that daily life. This research seeks change in the local not generalizations. It is this researcher's view that participant-based inquiry has more potential than the development of abstract and contextless models and methods because what really matters is what happens when teachers and learners work together (Allwright and Bailey, 1991: 17). This is what leads Edge (2001: 10) to remark:

'Action research holds out the hope of a coherence to which a misplaced theory/application discourse cannot even aspire.'

Based on the theoretical framework of the research, there are two defining characteristics to the study. These are first that the study was carried out by this researcher as participant rather than as an outsider and second, that the research sought to change the status quo of the context in which it was situated. The researcher was a participant and thus the research had an impact on this researcher's life as it did on those of the participants because at all times he was striving to make the online COP more effective for the development of reflective capabilities. Further, the findings are conserved and will be used to refine future practice. Other practitioners in similar fields with similar roles may also take it up. The need for this research grew out of necessity for change based on observations of trainee reflective portfolios. Part of the assessment criteria of these portfolios is the ability to offer critical reflection on one's teaching performances. However, it was found that reflections were predominantly descriptive, focusing on recounts of technical aspects of teaching in the classroom such as classroom management issues. This is evidently important. However, critical discussion of broader issues and wider perspectives that encompassed the social, political and ethical characteristics of the educational context was wholly lacking. It is believed that by reflecting on these issues, trainees can become aware that

they are agents of change for their entire environment, not only their classrooms. These trainees teach in schools in very poor neighborhoods (those that belong to the forty percent of subsidized public housing in Hong Kong). They represent the poverty-stricken side of a city that measures income inequality as the worst in Asia; lower than India and Mainland China.

The inquiry process was participatory and therefore sought to mutually benefit all involved as a community of practitioners (Carr and Kemmis 1986; Masters, 1995; McNiff, 2002; Reason and Bradbury, 2001; Wadsworth, 1998). This researcher believes that the study was as important to the participants as it was to him, and that this too is an essential aspect of action research. The research was conducted to give voice to participants and help them to better understand and develop their roles within their own realities. Participant contributions meant communicating concerns as well as learning processes. Participant thoughts and changes in their beliefs were recorded and could be read by the group at any time. There was opportunity therefore, to glimpse into each of the participant's evolving minds. In this way, it is hoped that justice and equality are inherent to the work: justice is present because the educational and social context of Hong Kong is portrayed honestly through the eyes of people who care about making a difference; equality is present because all participants had constant access to the data online, and they were encouraged to contribute any topic to it freely.

Although this researcher had a mediating role, he was not governing the when, the why, the what, the where or the how that participants contributed. The reflective mechanisms were given to guide but as the findings demonstrate, they were not necessarily adhered to in the way that they were presented. For example, the presentation of a participant using the Daloglu (2002) framework in the results chapter reveals that the questions were not answered in the same order as they were displayed (2002). This was welcomed as it meant that participants were processing and personalizing the mechanism. In addition, it was predicted that repeatedly following the same iterative procedure might become onerous for trainees. In fact, the view was that throughout each case study conducted, changes in the frameworks or cycles should be welcomed as engagement in the general schema. This would mean that participants were adjusting these schemas to their own realities to aid in the understanding of their living, felt knowledge.

3.2.3. The research paradigm.

This researcher positions his work within the interpretivist paradigm relying on emic science (an insider perspective) and small-scale, specific projects such as case studies. For this, a relative ontology, which takes into account how human situations, behaviours and experiences construct realities which are inherently subjective, is posited. However, as Edge and Richards state (1998), each researcher will probably develop an ‘individual stance’, as each research context is unique. Although much of the data presented in the results is qualitative in nature, terms such as *measure*, *triangulation*, *reliability* and *validity*, which are most commonly associated with the ‘positivist’ paradigm, are used commonly. This author believes that it is possible, by taking an individual stance, to use these terms freely. In fact, by using these terms, this author hopes to make the research more generalisable so that other researchers may be more able to apply it to other contexts. In addition, this research follows what Edge and Richards refer to as ‘new paradigm diversity’ (1998: 339), or a post-positivism, which attempts to ‘unify’ (see Jacob and Wolcott, 1992), representations of key concepts.

3.2.4. The action research methodology.

There is a diverse understanding about what the term ‘action research’ actually signifies. The term originates in Lewin (1948) who states in his paper ‘Action Research and Minority Problems’ (1946) that action research is:

‘A comparative research on the conditions and effects of various forms of social action and research leading to social action’.

To do this, requires:

‘A spiral of steps, each of which is composed of a circle of planning, action and fact-finding about the result of the action’.

Lewin’s (1948) model was however based on a problem identified from the outside, and thus a top-down decision to start an inquiry. It was not until Stenhouse (1975) used the term ‘teacher as

researcher', that this fundamentally changed to a bottom-up process with the teacher as insider and agent for change. For this model, the research is carried out through a systematic process of planning, action, and reflection on action creating a complex spiral of exploratory change. This is a process involving problem-solving actions and has been termed 'ethnography's self-correcting investigative process' (Angrosino and Mayes de Perez, 2003: 112). In addition, there is a constant gathering of evidence about practice as the researcher seeks proof of planned change in his design. This evidence gathering may involve multiple sources and methods. Through the process of enquiry, there is a construction of knowledge about practice to better understand underlying causes leading to future predictions that creates a constantly refined and growing informed practice. In short, as Torbert (2002) argues, performing action research is similar to conducting an experiment because it focuses on hypothesis forming based on observations followed by testing and then evaluating and reporting the outcomes of the tests. The principle difference with scientific enquiry is that the data collected in this kind of research is not empirical evidence in that it is not based on rigorous statistical findings nor said to be entirely objective. This brings up questions as to the validity and reliability of action research.

Reliability and validity in action research methodology.

Assessment of the reliability and validity of ethnographical research can bring up problematic issues (Hammersley, 1995; Lincoln and Guba, 1985; Lofland, 1974; Miles and Huberman, 1984). Reliability refers to the consistency of measurement. It is concerned with whether similar results could be drawn across similar settings, time frames and samples if an identical research project was conducted (Stringer, Ernest and Genet, 2004). Validity broadly consists of internal and external validity. External validity questions whether results from the sample used may be representative of a much larger population so that generalizations may be made. Internal validity refers to whether the results obtained are due to the independent variables from the study and not from another cause (ibid). Validity in research thus questions if any substantive theory is produced and developed; it asks if any of the claims made are of interest to other researchers and if these are consistent with regard to any empirical observations. In addition, validity is concerned with the credibility the account offers readers and those studied; and the degree to which the effects of research strategies on the findings are assessed. Finally, validity questions if

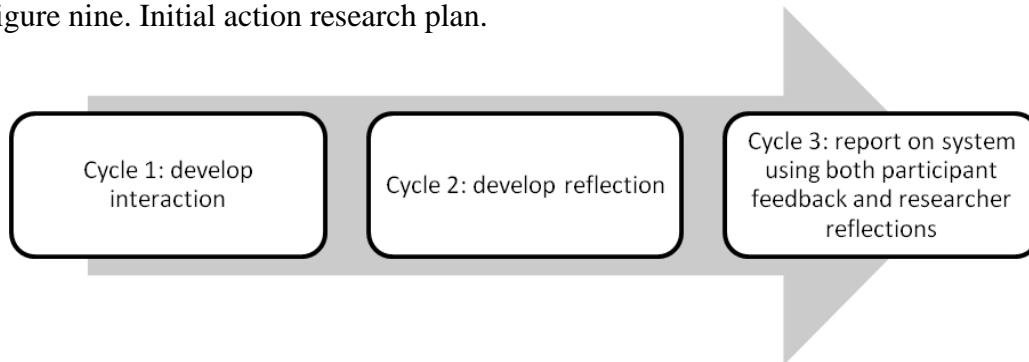
the amount of information regarding the research process given is sufficient to offer a clear picture of the data, e.g., a research time frame.

Action research tends to focus more on the specific and the local (Edge, 2001), not the generalizable, and this may have an effect on the validity and reliability of the research (Hammersley, 1995). Whereas quantitative research can be assessed using well-documented and formulated processes for testing reliability and validity such as statistical techniques, action research cannot. What is true for one account may vary considerably for another. In other words, truths are primarily contingent in naturalistic enquiry. In addition, whilst researchers using scientific or positivist methodology strive to remain aloof and unbiased in their reporting, action research protagonists are often closely connected to research participants. Indeed, often the closeness of connections is significant for the success of a study. As action research is quite different from experimental research, Lincoln and Guba (1985) have supplied a well-known typology that seeks to assess the validity of an action research project. The typology is applied to this research at the end of this chapter in the section on ethical dilemmas so as to argue that these constructs have been carefully considered. This typology contains four constructs belonging to the meta-construct ‘trustworthiness’ (cited in Stringer, Ernest and Genet, 2004: 49). These are ‘credibility’: the plausibility and integrity of a study; ‘transferability’: whether results might be applied to other contexts than the research setting; ‘dependability’: where research processes are clearly defined and open to scrutiny; and ‘confirmability’: where the outcomes of the study are demonstrably drawn from the data.

Initial action research cycle.

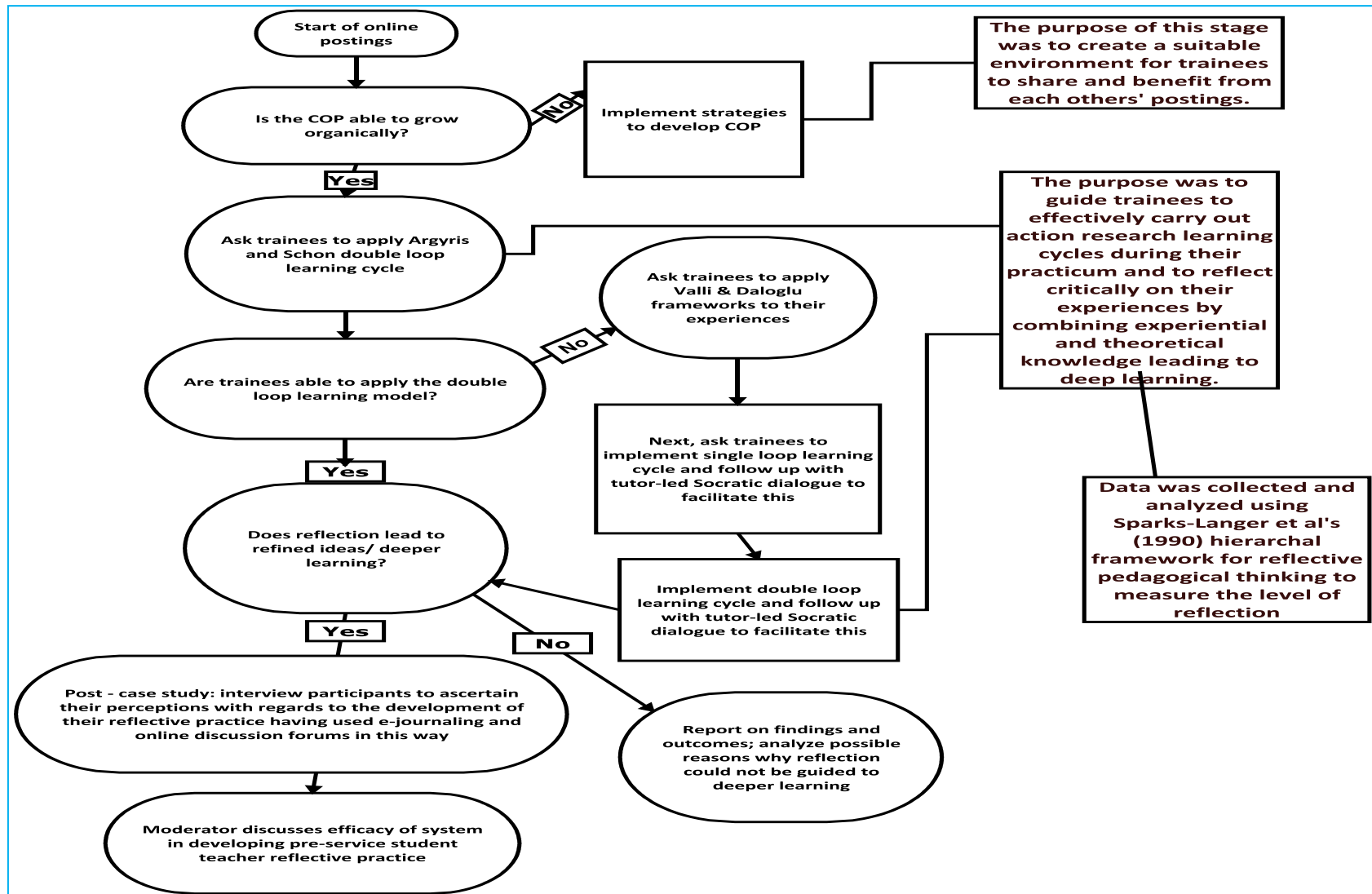
The following action research plan in diagrammatical form (figure nine) can be seen to represent the initial research process that was implemented for this study:

Figure nine. Initial action research plan.



The process outlined above was developed as an ongoing one of discovery rooted in trial and error practice. Results from one case were collated over time through experiential learning and reflection and used to determine how the next case was to be managed. The final research process is offered below. The conceptual metaphor of a tree can be used to help to picture how the research was conducted. The trunk and main branches make up a flow chart of a straight line. This can be considered as the main driving force of the research process. However, there are other branches that grow off of these main ones. These can be considered as required interventions applied during the living and learning period of the study. This full research process is presented below in figure ten. Cycle one in figure nine is related to ‘start of online postings’ and ‘is the COP able to grow organically?’ in figure ten. Cycle two in figure nine is related to ‘ask trainees to apply Argyris and Schön double loop learning cycle’, ‘are trainees able to apply the double loop learning model?’ and ‘does reflection lead to refined ideas/ deeper learning?’ in figure ten. Cycle three in figure nine is related to ‘post-case study: survey participants to ascertain their perceptions with regards to the development of their reflective practice having used e-journaling and online discussion forums in this way’ and ‘moderator discusses efficacy of system in developing pre-service student teacher reflective practice’ in figure ten.

Figure ten. Final research process.



3.2.5. The collective case study approach.

A collective case study approach was adopted for the research methodology. The three case studies were self-study action research projects (for more on this see in particular Allwright, 1991; Allwright and Bailey, 1991; Burns, 1999; Edge, 1993, 2001; Elliot, 1976, 1991; Freire, 1970; Greenwood and Levin, 2003; Kemmis and McTaggart, 1998; Kuhlmann, 1992; Nunan, 1991, 1993; Wolf, 2003). Adelman *et al.* explain that the case study is an ‘instance in action’ or ‘bounded system’ (cited in Nunan, 2005: 75-76). It is a bounded phenomenon (in this instance, an online forum established to offer support to pre-service trainee teachers) that functions in context. Similarly to a narrative exploration, it has a start, middle and end. Thus, cases are conducted in their own right as a holistic phenomenon, and this may concern, as in this case, an innovation in teaching or training (Nunan, 2005: 76). The following definition of a ‘case study’ from Merriam (1988: 16) is poignant for this research:

‘The qualitative case study can be defined as an intensive, holistic description and analysis of a single entity, phenomenon or social unit. Case studies are particularistic, descriptive and heuristic and rely heavily on inductive reasoning in handling multiple data sources’.

In the same way, Nunan (2005: 74) describes the case study as a ‘methodological hybrid’ as it uses a range of methods for collecting and analyzing data.

3.3. The context and setting.

This research was conducted in Hong Kong at the Institute of Education. Hong Kong is one of the world's leading international financial centers. According to the ‘Wall Street Journal’ and ‘Heritage Foundation's Index of Economic Freedom’, it has annually ranked as the freest economy since 1995. This is due to strong non-government interventionism combined with low taxation. At the time of writing (2013), the Hong Kong dollar was the ninth most traded currency in the world and the Hong Kong GDP per capita at purchasing power parity, the seventh highest globally. Despite this, there is a significant wealth gap between the rich and the poor with a fifth

of the eight million inhabitants living below the poverty line. The monthly income of a family in the wealthiest bracket is twenty-seven times higher than that from the lowest strata.

The role of English in Hong Kong education.

In 1990, ninety percent of secondary students were in English medium instruction (EMI) schools (Johnson, 1994) though many of the teachers in these English medium schools actually taught through a Cantonese – English mixed code, implementing a ‘textual explanation approach’ (Luke and Richards 1982:50). Just prior to the handover in 1997, the laissez-faire policy enabling secondary schools to choose their medium of instruction was abandoned and a limited total of one-hundred and fourteen of the four-hundred and sixty secondary schools were allowed to adopt EMI instruction. However, this policy meant that almost all government and aided schools in poor areas were Chinese medium. The reasons for capping the number of schools using EMI was, according to Bolton (2000: 270), to preserve Cantonese and develop Mandarin (Putonghua). The Hong Kong 1995 language policy thus became ‘to develop a civil service which is biliterate in English and Chinese and trilingual in English, Cantonese and Putonghua’ (ibid). However, the demand for English was, and still very strong, since Hong Kong aspires to be ‘Asia’s World City’, thus needs English, which in today’s world, is the international trading language or lingua franca. As a result, despite the low number of wholly EMI schools, English is the language of instruction in university education. Thus, those select government EMI schools are in constant parental demand.

As Hong Kong was administered by Britain from eighteen forty one to 1997, its education system is closely modeled on the United Kingdom’s. The format in two thousand and twelve is described below in table two:

Table two. Educational system in Hong Kong in two thousand and twelve.

Length	Education type	Type
3 years	Kindergarten	Voluntary
6 years	Primary education	Compulsory
3 years	Secondary education	Compulsory
3 years	Senior Secondary (at the end of their study students receive the Hong Kong Diploma of Secondary Education)	Selective
Depends on subject	Tertiary education (there is a diverse variety of bachelors, masters and other academic degrees)	Selective

Tertiary education.

In Hong Kong, there are four post-secondary education institutes that offer full-time and part-time degree and postgraduate program for pre-service and in-service teachers; these are the Hong Kong Institute of Education (HKIEd), the Chinese University of Hong Kong (CUHK), the University of Hong Kong (HKU) and the Hong Kong Baptist University (HKBU). The Hong Kong Institute of Education (HKIEd), where this research was undertaken, offers a range of degree and postgraduate program as well as some sub-degree teacher education programs. Eighty-four percent of Hong Kong's primary school teachers and thirty percent of secondary school teachers are graduates of HKIEd. The Institute is thus the largest teacher education provider in Hong Kong. These programs are at pre-primary, primary and secondary education levels.

Primary and secondary schools.

This research was conducted with trainee primary and secondary school teachers on the BED (English language) degree. Within the Hong Kong system of education there are six types of school. These are presented below in table three.

Table three. Six types of school in Hong Kong in two thousand and twelve.

Type	Category	Description
Government schools	Comprehensive	Government-controlled. Schools that teach in Chinese as the medium of instruction.
Subsidized schools	Comprehensive	Shared control between the government and charitable or religious-organizations (Christian, Buddhist, Taoist). Schools that teach in Chinese as the medium of instruction.
Direct Subsidy Scheme (DSS) schools	Private	Non-government controlled. These schools are provided with subsidies. To join the DSS system. These schools have autonomy when choosing their curriculum, the price of their fees and their entrance requirements.
Private schools	Private	Non-government controlled. These schools primarily accept local Chinese students who gain entry through scholarly merit. Schools teach in both English and Chinese as the medium of instruction.
Private international schools	Private	Non-government controlled. These schools teach in English in addition to the language of their sponsoring nation. These are mainly Arabic, Korean, Japanese, French or German. They use the International Baccalaureate for their curriculum.
English Schools Foundation	Subsidized	Non-government controlled. Tuition fees are lower than international school fees as there are government subsidiaries provided. These schools offer education to English-speaking children who cannot access the local system of education.

The trainee schoolteachers involved in this research primarily undertake field experience positions in the poorest, urban areas where the majority of the government and subsidized comprehensive schools are located. Most of these are local Chinese but the flux of Mainland Chinese since the handover from Britain in 1997 has meant that there is an ever-growing number of Mainland-Mandarin-speaking Chinese. The majority of the field experience support comes

from the experienced mentor where the attachment school is taking place. This ‘supporting teacher’ serves as an assistant to the trainee, developing the mentee’s knowledge of and ability in teaching, tutoring, preparing teaching materials, marking pupils’ work, helping groups of pupils or an individual pupil, and assisting in extra-curricular activities. The HKIEd Supervisor’s role is to liaise with the school Principal first, then to set up a tripartite meeting between the student teacher and the mentor, whose lessons they will observe. It is then to arrange two classroom observations (one about five weeks into practice and another about seven weeks into practice), which are evaluated (pass or fail). This entails communication several days before an observation to allow time for discussion over a lesson plan; pre-lesson and post-lesson discussions, and meetings with pupils to go over the feedback of these observed lessons. These conferences are designed to provide the opportunity for meaningful reflection where theory can be challenged and practice improved. Ultimately, it is the HKIEd supervisor’s responsibility to determine the student teacher’s readiness and suitability to enter the profession.

At the end of block practice, a fifteen-hundred-word reflective portfolio based on the experience must be submitted for assessment. As these are third-year students, they are doing an intense block practice for the first time. Consequently, they have never completed a reflective portfolio task of this nature before. It is the supervisor’s role both to develop this skill and to assess it. Students are required for this task to reflect on critical incidents concerning the macro features of their school as well as their own classroom practices. Therefore, subjects for reflection may be the school’s mission and vision in the community; and initiatives to promote English learning from a school-wide perspective. The writing of the portfolio reflection is a high stakes task. If the portfolio fails, the student fails block practice.

Description of the participants.

Three eight-week case studies were conducted. This researcher did not know any of the students prior to the study and each one was selected and appointed to him randomly by the department, as is the norm. Each case study contained eight third-year participants of a four-year B.Ed. (EL) degree from both Hong Kong and Mainland China. There was a mix of male and female students aged between twenty and twenty-five. As these students were in their third year of study, this was the first time they managed and conducted their own classes in a school for a relatively long

period of time. Previous to this, they had only shadowed mentors in schools in Hong Kong and abroad (New Zealand) during immersion and taught occasional isolated lessons as part of their training. This lack of real practical teaching experience was why these cohorts were chosen for the research. The system this researcher was putting in place was hoped to act as a platform for discussion as well as its chief research purpose, which was to develop the reflective practice capabilities of these trainees. Pseudonyms of the participants are used in the results. Each participant was aware from the beginning that the research was being conducted and had read an email and consented to do the research prior to it.

3.4. Data collection tools and methods.

3.4.1. Types of data collected.

Data collection in action research provides practitioner-researchers with a picture of how successfully their work is proceeding. The goal for using data collection tools is to assist the researcher in clarifying information, processing knowledge, and identifying opportunities for continuous improvement in practice. Consequently, data collection is an ongoing process that occurs throughout the study. As data is constantly required throughout a project in order to sustain its success, it is important to adopt a systematic methodology for collecting and analyzing it and to combine this with sufficient time with which to reflect on what is being discovered. The data types, the processes and the time frames of data collection and analysis from this study are presented below.

Both quantitative and qualitative data were collected during the three case studies conducted. It was important for the project that participants posted at least once a week to each forum with a relatively extensive report of their work (at least fifty words). In addition, participants were strongly encouraged to commit to asynchronous online dialogue with their peers and this researcher. Thus, if each participant used the forums twice or more than this number per week, this demonstrated that the moderator practices were quite successful. Thus, one criterion that validated the project was the volume of usage. Sample size determination is the process of deciding when ample samples have been collected for the results to be used in making inferences. The end of the third case study reached a sample size of three hundred and twenty postings. Eliminating some early postings from the third case study then reduced this. These

early postings were no longer as important as this researcher had already decided that the ‘model for developing online awareness and interaction’ had been constructed and trialed satisfactorily. The three hundred postings figure was acknowledged as sufficient for the purpose of content analysis and is in tandem with sample sizes from other similar studies (Ho and Richards, 1993, Shulman, 1987 and Yang, 2009), which have also focused on analyzing the effectiveness of the online environment for developing critical reflection.

Qualitative data was collected using the process outlined by Nunan’s (1993) well-known model cycle, which starts with an investigation, moves on to a hypothesis about reasons why something is occurring, and is followed by an intervention, an outcome and the reporting of that outcome. This process occurred regularly in order to illuminate practice. Personal writings and research notes based on observations of interactions online and analysis of salient textual material from the postings recorded the processes of research. This was done to offer satisfactory triangulation. The collection of data and its analysis were simultaneous acts and occurred, similarly to Barnsley and Ellis (1987: 24), while the research was in progress as well as after the data had been gathered. Other non-observational data in the form of answers to five survey questions were collected from participants at the end of each case study to evaluate the system. The observational data collection took place in the ‘natural’ loci (Angrosino and Mays de Perez, 2003: 107), in particular through observing:

- the online asynchronous dialogues between participants and between participants and this researcher.

These data normally consisted of short messages involving several participants over several days. Characteristically, these texts would be heavily co-constructed (see appendix three and four);

- trainees’ autobiographical monologic postings, similar to a blog or online journal entry.

These data were normally longer messages. Another participant or this researcher occasionally responded them to but this response was normally short. Characteristically, these texts would be only lightly co-constructed (see results section applying double loop learning cycle).

Different time frames were in operation for data observation and collection. This researcher would log in to Blackboard at least three times a week to read postings and discussions and to make sure that if trainees needed support, it could be offered. Even if not asked to respond to a question or convey an opinion, this researcher would normally post a comment or pose a question to help promote the momentum or flow of the communications. If the site, was not being utilized, this researcher would seek to elicit usage by contributing a posting, asking a question or bringing up a point about any lesson plans received from trainees before a supervised lesson or any observations that had taken place around that time. This kind of site maintenance prevented the forums from becoming stagnant.

In addition to the regular log-ins conducted during the week, all of the threads from each forum were collated every seven days using the collect thread tool on the Blackboard discussion forums. Once the collect tool is selected, the postings are displayed. A user needs to select the postings required individually or simply tick the first box for all postings to be selected. These can then be collected in various ways. They can be collected chronologically, in descending or ascending order; descending lists the postings from the latest first; ascending lists the postings from the earliest first (see appendix four). They can also be collected in other ways: from the author's first or last name; or via the subject of the postings (see appendix three). For this research, threads were collected on a chronological basis in ascending order every week and collected in terms of the topic raised. They were then coded and sorted. All posts were first analyzed and sorted into categories based on the content of their reflections (what are the themes that emerge during reflection on practicum matters?). After this was done, coding to sort postings belonging to levels of critical reflection occurred (to answer the questions: how can teacher reflection be fostered and developed through online means? What are the effects of asynchronicity on reflective practice?). Both of these processes are presented in detail in this chapter.

3.4.2. Open or closed access.

The forums were only quasi-open access. Access was given to the trainees under this researcher's supervision and only for each case study alone. Thus, a new site was started for each of the three cohorts. It was felt that this would be a better system than an open forum such as that found at 'blogger.com', which can be accessed by anybody online who visits the blog. This was due to a need for a close-knit collective through which participants could express their concerns openly and without concern about who might be reading their postings. It is not within the scope of this thesis to conduct a longitudinal study to test this hypothesis. However, the survey at the end of each cohort proved that members did not mind sharing their highs and lows with their peers or this researcher revealing the appropriateness of the quasi-open system.

3.4.3. Informing participants about the research.

At the beginning of each cohort, before the commencement of the block practice field experience, an email was sent to trainees to discuss the research beforehand. This email outlined why the site was set up and described the logistical arrangements of site usage. As already noted, these case studies were part of participatory action research. Thus, the sending of this email was done because it was this researcher's belief that the success of each case study rested on the informed cooperation of each participant. The email is presented in figure eleven:

Figure eleven. Email sent to trainees prior to the research.

October 2009

Dear students,

To widen the level of support offered to you on Field Experience, I have set up a Blackboard site (a *community of practice*) for you. This has been done for several reasons:

1. It is hoped that members will not feel so isolated when they are doing FE because they are part of an ongoing online team.
2. Members can share their experiences and ideas with each other.
3. Members can ask me any questions they wish.
4. The Blackboard site is available at all times day and night, wherever you have an internet connection.
5. Members can upload lesson plans, or other documents or media e.g., video, and share these with each other.
6. Any use of the Blackboard site is excellent data for the portfolio you must hand in as part of your post-practicum task.

In order to make the Blackboard site work, there must be some rules of engagement:

1. It is essential that you use the site as much as you can. I suggest you read it at least three times a week for updates and that you post at least once a week. Without this, the site will fail.
2. Please try to be as reflective as possible when you write about an experience at school;

If you manage to do all of this:

The Blackboard site should be very effective for your professional development. I will be your educator and online facilitator and will pass at least ten hours a week on the site answering your questions, guiding discussions, and summarizing what has been said/ done, dealt with and still in progress.

This has become important to me because I have found that mentees on practicum can feel isolated and in need of support.

Personal privacy guarantee

I would like to use some of the data for future publication and so am asking for your cooperation. Any references to you in any publications will be completely anonymous.

3.4.4. Use of the site.

In the email, this researcher encouraged participants to use the site at least three times a week, to read the discussions and upload a reflective journal posting of significant length at least once a week. Without this kind of engagement, participants were told that the site could fail. It was not compulsory for trainees to use the site so the benefits of doing so were strongly conveyed. The principle point put forward was that trainees would have potentially constant support but also, that it was hoped that the end of practice reflective portfolios would be far superior to those that they would write if they did not have access to the online site. As with a reflective journal, students would be able to look back on and compare the postings throughout their eight-week experience. This meant that they would be able to analyze any processes of learning that took place by observing their own mini action research cycles.

3.4.5. Setting up participants to use the site for reflections.

Initially participants were given a graphic of the double loop learning cycle from Argyris and Schön (1978) and asked to apply it for reflections. However, this was found to be ineffective during the initial days of the first case study. Consequently, Daloglu's (2002) framework was selected for application, and students were asked to consider those questions as they analyzed their experiences. Observations of participants' postings applying the Daloglu (ibid) questions combined with further reading, led to a further mechanism being selected, Valli's (1993) construct of deliberative reflection. This fusion of the Daloglu (2002) / Valli (1993) mechanisms were integrated with the Argyris and Schön (1978) single loop learning cycle to become the first stage in developing reflection.

3.4.6. Data collection.

The content analyses performed.

Smith (2000: 314) states that content analysis is a:

‘Technique to extract desired information from a body of material by systematically and objectively identifying specified characteristics of the material’.

Content analysis was conducted in the form of conceptual analysis. In other words, concepts or themes were identified during examination and quantified as well as analyzed qualitatively. A process of selective reduction was carried out to reduce postings to words and phrases indicative of the research questions. At times, as presented below for Ho and Richards' (1993) typology, the categorization could be complex as postings were implicit and explicit in meaning. What was required for implicit descriptions i.e., postings that did not outwardly belong to a certain category, was a decision about a term's 'level of implication' (Smith, 2000). This meant that it was necessary to make subjective judgments to decide if a posting implicitly belonged to a certain category based on its subject matter and the language used by its author. For example, mental verbs used by a trainee such as 'realize' or 'discover' to describe a process of participant learning could be considered as belonging to 'self-awareness and self-evaluation'. Thus the conceptual analyses would occur at the word level using a process of selective reduction i.e., basing the categorization process on the existence of a significant lexical item. At other times, it would involve analyses of whole clauses or several clauses together. Examples of content analysis are offered later in this chapter as examples of data analysis for groupings one and two.

The grouping of the data sets.

Data from the online sites were grouped for three purposes. The first purpose was to examine and to categorize the topics of discussion on the forum. The second purpose was to analyze the level of participant reflections. The third purpose was to collect ongoing feedback from participants about the site and systems in place for the action research cycles. This third purpose was also conducted in the form of a written set of five questions completed asynchronously by participants at the end of each case study. Each type of grouping was therefore an important aspect within each action research cycle and across action research cycles. In order to accomplish each purpose, a particular content analysis typology or framework was used to guide categorization or examination. These analysis tools are described within each data grouping phase below.

Data grouping one.

The first data grouping process was conducted after the initial incubation stage had been reached and surpassed and users were reflecting on their experiences by applying the Daloglu (2003)/

Valli (1993) model to their field experiences during the week and later applying these to the single learning loop cycle graphic (Argyris and Schön, 1978). This data grouping was ongoing, continuing through to the beginnings of the double loop learning cycle application. At the end of each week, all postings were collated and the content of each was examined, analyzed and coded. As a result of this codification, themes were used to group the postings. These were based on relevant readings of themes constructed from similar research projects (Ho and Richards, 1993; Shulman (1987); Simonsen, Luebeck and Bicean, 2009; and Yang, 2009); in particular those constructed by Ho and Richards, (1993); and Shulman (1987). An additional form of thematic data is offered in the results section in table form. This offers a percentage of each theme identified in relation to the total number of postings collected. This is done to offer the reader an idea of the number of postings belonging to the two main areas of interest 'self-awareness and self-evaluation' and 'discussing broader issues in education', which were for this researcher examples of significant applications of the reflective models developed. In contrast, the number of postings relating to 'Life/logistics' demonstrated a focus on technical or practical issues, and this would be significant as description and therefore less interesting data for this research.

Data grouping two.

This grouping involved the further categorization of postings from grouping one above. This analysis recorded reflective content using an established typology on levels of critical reflection from Sparks-Langer *et al.* (1990). This grouping was therefore an offshoot from the second, which first examined themes. The ultimate level of reflection, a level seven using the chosen typology from Sparks-Langer *et al.* (1990), involved reflections on experiences by applying 'explanation with consideration of ethical, moral or political issues'.

Inter-rater reliability test for grouping one and two.

As the data grouping for the thematic analyses conducted could be critiqued for a lack of objectivity, postings were subjected to a modicum of inter-rater reliability. Inter-rater reliability is the degree to which raters share agreement. This demonstrates homogeneity and is useful in determining whether variables or scales are effective or deficient. Gwet (2012: 1) states:

‘Professional researchers who report their research findings are often required to include inter-rater reliability statistics into their analysis. These statistics are quality indicators of the measurement reproducibility. Two raters scoring the same subjects under the same conditions are expected to achieve a high level of consistency in their scores.’

Another rater classified ten random samples for coding stage one (topic of reflection) and ten for coding stage two (level of critical reflection). The texts and answers are provided in appendices five and six. The inter-rater reliability was high for both classifications. Agreement was reached for the coding of each item for data grouping one; and nine from ten decisions for stage two, or the scaling of the reflective thinking. The area of discordance was based on an understanding of the terminology used by Sparks-Langer *et al.* (1990). One rater considered the following as an ‘*event labeled with appropriate terms or concepts*’ (level three) rather than one ‘*using pedagogical principles*’ (level five):

“According to the schedule, Tina and I should teach the reader Spiderman until 4th May. In our methodology course, we learnt that readers are a good tool because the language is contextualized.”

The distinction between these two digits is in fact whether the posting solely names the practice e.g., “*I asked students to do collaborative group work*”: this is only a level three reflection; or whether ii gives a justification of the practice: “*we learnt that readers are a good tool because the language is contextualized*”. This is a level five reflection. Once this interpretative variance had been discussed, the rater and this researcher agreed absolutely with the content analyses.

Data grouping three.

One final form of data collection conducted was in the form of a written survey with a set of five questions (the document provided to trainees can be found in appendix two). At the end of each case study, trainees were asked to asynchronously and individually complete the following questions and to give an explanation for their responses:

Did you find the socializing activities helped you to get to know each other?

Did you find the structure to develop reflective practice using Daloglu, Valli and Argyris and Schön useful?

Did you find asynchronous communication beneficial for reflection?

Overall, did you find the site helped to develop your reflective practice?

Anything else you would like to add?

The answers to these questions served two main functions. The first was that the feedback aided the tutor to improve the site and guide practice from one case to the next as part of the action research process. The second was that some of these responses would be selected for the final evaluation of the research, and in particular to present trainees' perceptions of the forums with regard to the development of their own reflective practices. Some responses were also chosen for follow-up qualitative questioning if issues arose which could help to improve the effectiveness of the site in addition to moderator strategies.

3.5. Reflective data analysis instruments.

As Polkinghorne (1988:6) argues, 'narrative meaning is created by noting that something is a 'part' of a whole and that something is a 'cause' of something else'. This definition is essential to this study, as the findings will demonstrate. This research is a constructed narrative offering a time frame of events that follow a narrative structure of cause and effect, and conscious reflective practice leading to more reflective practice events. The progress from one reflective practice event to another reveals the learning process of a participant-trainee teacher as well as the learning of this researcher, as a supervisor and online moderator. Thus, this study tells the tale of how this researcher, over periods of eight weeks, applied tools in an online environment to develop the reflective practices of his teacher trainees. Three of these case studies were conducted in all. During the first case study, all practices were new, both to the moderator and the participants. During the second and third, these moderator practices became more sophisticated. The results section is therefore predominantly made up of descriptions of this researcher's practices and their development through his perceptions and judgments of experiences. Consequently, the data collection instruments such as important textual material and survey responses are examined using tools found commonly in narrative approaches to

educational research: namely observations written down through personal writings research notes, and survey responses. The following instruments common to narrative or life study works were used for this study: observations; research notes; salient textual material; personal writings; and surveys. These will be discussed below. A hallmark of conducting qualitative research is that data are analyzed continually, throughout the study, from conceptualization through the entire data collection phase, into the interpretation and writing phases.

Observations.

Observations of the social interaction between participants in addition to the number and size of postings were made throughout the study. In this way, and in particular at the beginning of the case studies, this researcher was observing the patterns of interactions, in order to judge whether the online communities were exhibiting the four constructs essential to a community of practice outlined by Wenger (1998). Having surpassed the incubation stage, observations of posting content were also made regularly to code themes and levels of critical reflection.

Research notes.

Notes were kept throughout the case studies to write down observations (see appendix seven for an example). These notes were taken at every visit to the online forums. They were organized chronologically: one main section would therefore signify the week, from week one to week eight, but these weeks would also be segregated into three, to represent this researcher's visits to the sites. In other words, there were twenty-four entries for each of the three case studies. During these visits, the nature of participant interactions and the content of their postings were analyzed and described. These notes were read and re-read regularly to connect past observations with new ones and this was very important in the construction of the models developed. It was believed that observations not recorded might soon be forgotten. In addition, this researcher was always aware that the importance of some small phenomenon might not be understood early on but rather, later on, recursively in hindsight. Thus, these personal interpretations of events and processes were treated as essential to the research process. This was particularly important for this action research project because during the research process, note taking and further reading based on interpretations of observations were constantly occurring. After the completion of the third case study, these research notes were used to write up the results section.

Salient textual material.

The postings from online forums were continuously collected and collated using content analysis methodology described above. This represented a large amount of data. The total number of postings chosen for the sample size was three hundred over the three case studies. All of these postings were analyzed and categorized. At the beginning of a case study, these were primarily analyzed to locate Wenger's (1998) constructs. Once the incubation stage had been passed, these were then analyzed first to categorize them into their themes, then for their level of reflective analysis.

Personal writings.

This researcher kept a personal research journal during the research (see appendix eight, which is a personal response to how well a forum was developing at the beginning of case study two). These writings were different to the research notes as they consisted of more subjective reactions to the projects and personal feelings about how these were developing over time. Questions such as 'how do you feel the research is going this week?' and 'what have you learnt this week?' were asked. These notes were important because they offered a dimension for this researcher to reflect on his own practices rather than those of the participants. Some personal writings were at times quite negative if it was felt that progress was slow. This was particularly true at times when participants were inactive online and this researcher felt that the projects were not moving along adequately.

Surveys.

As noted above, data was collected and analyzed from participants who individually and asynchronously completed five questions and explained their responses at the end of each case study. It was decided to conduct surveys asynchronously as this would allow learners to use more time and reflection to answer the questions. Information collected from these questions was important for the development from one site to another site but also as final summative evaluations of the research as a whole when the third case study had been conducted. It was decided not to ask students the same questions during the research at the relevant stages rather than at the end because this researcher wished to gather data from participants who were working with hindsight by answering the questions so that they could observe the whole process as well

as each stage of the process. A final, open-ended question ‘anything else you would like to add?’ was included to give participants opportunity to write about something that had not been represented in the previous questions. This was done to allow participants to express themselves freely and to write about subjects other than those offered in the first four questions. Some responses from these questions have been selected for the results section.

3.5.1. The data analysis of the groupings.

The typologies used to interpret the data were taken from Ho and Richards (1993) and Shulman (1987) and Sparks-Langer *et al.* (1990).

Data analysis of grouping one.

Analysis of grouping one was conducted to categorize posting topics. Thus these analyses answer the question: **what are the themes that emerge during reflection on practicum matters?** Three typologies were considered for this grouping stage: the typology from Valli (1997), who identifies six types of reflection: technical reflection, reflection-in-action and reflection-on-action, deliberative reflection, experiential reflection, and critical reflection and the typologies from Ho and Richards (1993) and Shulman (1987). Valli’s (ibid) constructs encompass a great deal of topics. ‘Deliberative reflection’ encompasses reflection on a range of teaching concerns such as curricula, teaching strategies and classroom management. This topic of reflection focuses on decisions made influenced by others in addition to a teacher’s personal beliefs. A teacher engaged in ‘experiential reflection’ is focusing on his own personal growth, and the affective concerns of his students. ‘Critical reflection’ is concerned with the social, moral, and political issues of education. The aim is to facilitate social justice and equality of opportunity. Although Valli’s (1997) might have been used for this grouping stage, it was found that the constructs were too broad for the data collected from this research. As a result, if used, the Valli (ibid) typology would have required a great deal of manipulation and dividing into sub-topics. In contrast, Ho and Richards (1993) and Shulman’s typologies (1987), matched topics emerging from the data collected from the first case study and so were more easily accommodated. These needed only minor changes to fit the data.

Ho and Richards' framework (1993).

Initially, before any data had been collected for analysis, it was hoped that Ho and Richards' (1993) framework, which was designed for qualitative research on TESOL student teachers' paper journal entries, would be ideal for categorizing all of the forum postings. Ho and Richards (ibid) found that general themes emanating from their journal data were the following:

‘Theories of teaching’: comments made or posted by the student teachers about second-language acquisition theories;

‘Instructional approaches and methods used’: comments and postings from the student teachers referring to their own use of methods in the classroom, as well as their expression of beliefs and knowledge related to these practices;

‘Teaching evaluation of approaches and methods’: the feedback and discussion provided about methods through sharing from field experience events;

‘Self-awareness and self-evaluation’: comments, postings, and discussion based on self-awareness and self-evaluation.

However, after examining the content of the postings of the initial forums of the first case study, it became clear that Ho and Richards' framework (1993), which was designed for in-service teachers, was not completely relevant to this researcher's context.

First, a fifth criterion was added to better accommodate pre-service teacher trainees' content because they tended to ask this researcher (as teacher educator), and each other, a great deal of questions pertaining to their teaching, and questioning was not a part of Ho and Richards' (1993) typology. This researcher entitled this fifth element ‘*Questions about teaching and requests for advice*’. Examples are provided from this study's data below:

“What do you think about using some Chinese if necessary in order to help students understand the teaching content better and at least learn something”?

“Do you have any ideas about signing a ‘classroom management contract’ with the students to state your expectations and also establish a professional figure in the first lesson”?

“Should I use Cantonese in class”?

The first two postings were counted as ‘asking questions’; the third posting ‘requests for advice’. Second, while in the process of examining the forum postings created by participants over the first eight-week field experience period, this researcher found three other problems with Ho and Richards’ (1993) typology. Although a great deal of evaluating teaching strategies in the classroom took place with some mention of methodology such as the benefits of task-based teaching and learning, themes relating to ‘teaching evaluation of approaches and methods’ did not appear sufficiently in this researcher’s data for this to be a criterion. This was therefore removed from the categories of content analysis. In addition, the category ‘Theories of teaching’ was not found to be so predominantly present either. As a result, this was added to instructional approaches to create an all-encompassing ‘Discussing instructional approaches, teaching theories, methods and strategies’. An example is offered below:

“A friend of mine recommended me a classroom management practice called ‘power teaching’. It is really powerful and useful I think. Here are the links, hope they can help you too”!

‘Demonstrating self-awareness and self-evaluation’ was a criterion kept without modification from Ho and Richards’ framework (1993). Examples of this are provided below:

“Because we have designed a simple competition for the class, which aroused their interest to answer our questions, the discipline has improved. We think our teaching has helped them pay more attention in class”.

“My partner and I had to plan the lessons all over again, and our nerves were shot at the moment! Luckily, we came up with a new lesson plan right before Mark's supervision and we could finally finish our lessons. From this incident, I realized that teaching has to be flexible and has to be prepared to implement a contingency plan”.

The postings above were characterized for ‘self-awareness and self-evaluation’ because they each contain a mental verb which is used to describe a personal learning point and are followed by the description of a problem or an evaluation of an improved situation for example, *“We think our teaching has helped them pay more attention in class”; ‘I realized that teaching has to be flexible.’* These demonstrate that participants were able to recognize that they had learnt something new about their contexts and their roles within those contexts.

Shulman’s typology (1987).

The categories above, based on Ho and Richards’ (1993) analyses, did not account for all the topics emerging from the data collected. The messages collected were also categorized using another coding category based on Shulman’s typology (1987), which has eight categories. These are: life/ logistics; content knowledge; curriculum knowledge; general pedagogical knowledge; pedagogical content knowledge; knowledge of learners and their characteristics; knowledge of educational contexts; and knowledge of educational values. Two knowledge types were selected. These are ‘life logistics’; and ‘content knowledge’. Shulman’s (1987) ‘Life/Logistics’ (LL) refers to describing personal life situations or logistics of a training program. This was found to be the major category of the online content for this study. Below messages from this researcher’s data exemplifying this category are provided:

Life /Logistics

“The first week was really a tough time for me. I taught several lessons on my own and also assisted my co-teaching partner in some lessons”.

‘After Easter holiday, this is the second week we teach at school. On Monday, our supervisor visited our school and observed our class. As there was uniform test in this week, we just had one double-lesson with students’.

The postings above were categorized as ‘life/ logistics’ because they represent factual lifestyle details about the trainees’ contexts. Although they may have contained some reference to sentiments, these postings are predominantly descriptive in nature.

The category ‘Content Knowledge’ (CK), which concerns subject matter knowledge from Shulman’s (1987) typology, was also required to accommodate the data collated by this researcher. From this researcher’s data, this category can be identified from the following:

Content knowledge

“I’m teaching ‘the’ at the moment: it’s very difficult for the students, with all the rules – after mountains like The Himalayas etc. I hope my students can clear some confused concepts”.

“My students find the tenses in English troublesome”.

‘Subject matter knowledge’ was construed by this researcher as both single, specific instances such as the use of determiners such as ‘the’ in English and also more general terms to do with the language system, such as voice or still larger units such as the phonology or grammar of English.

The typology from Ho and Richards (1993) does not contain a category dealing with ethical, social or political elements. Shulman (1987) offers ‘knowledge of educational values’ but this was not believed to be broad enough and the notion of ‘values’ is a very subjective one. Therefore, this researcher decided to use ‘discussing broader issues in education’ as it was a more general category that could be more practical for coding. Examples from this researcher’s data are provided below:

Discussing broader issues in education

“As a whole, apart from the subject knowledge, it is important for the teachers to teach moral values as well. Today we taught a short story about a teenager being caught in dilemma thinking about whether to sell drugs with his peers”.

“The right kind of education consists in understanding the child as he is without imposing upon him an ideal of what we think he should be. To enclose him in the framework of an ideal is to encourage him to conform, which breeds fear and produces in him a constant conflict between what he is and what he should be; and all inward conflicts have their outward manifestations in society. Ideals are an actual hindrance to our understanding of the child and to the understanding the child has of himself”.

The postings above were categorized as ‘discussing broader issues in education’ because they go beyond the classroom to consider the wider implications of education with regard to developing a better society. Each posting presents an approach or strategy and how this relates to society itself. This can be seen in the postings above e.g., using short stories can be used for moral education; imposing our ideals on children encourages conformism.

The resulting framework therefore included two of Shulman’s (1987) constructs i.e., Life/Logistics and Content Knowledge along with Ho and Richards’ (1993) slightly-adapted category ‘discussing instructional approaches, teaching theories, methods and strategies used’, and with ‘demonstrating self-awareness and self-evaluation’, the altered construct from Shulman (1987), which became ‘discussing broader issues in education’ and finally, the construct from this researcher ‘asking questions about teaching and requests for advice from peers and the trainer’. These are presented below:

Life /Logistics (personal life situations or logistics of field experience and/ or teacher education program);

Content Knowledge (subject matter knowledge related to the body of knowledge in TESOL such as linguistics and phonology);

Discussing broader issues in education;

Discussing instructional approaches, teaching theories, methods and strategies used;

Demonstrating self-awareness and self-evaluation;

Asking questions about teaching and requests for advice from peers and the trainer.

These categories were also found to be transferable to the literature on reflective practice content as described by Zeichner and Liston (1996). There is of course crossover between categories but in general, the technical is represented in categories ‘content knowledge (subject matter knowledge related to the body of knowledge in TESOL such as linguistics and phonology)’; ‘discussing instructional approaches, teaching theories, methods and strategies used’; and ‘asking questions about teaching and requests for advice from peers and the trainer’. The experiential is represented in ‘life /logistics (personal life situations or logistics of field experience and/ or teacher education program’; ‘demonstrating self-awareness and self-evaluation’; and ‘asking questions about teaching and requests for advice from peers and the trainer. Finally, the critical is represented in ‘discussing broader issues in education’; and ‘demonstrating self-awareness and self-evaluation’.

One issue that arose for the categorization of the postings was that a single posting often contained more than one theme. An example of a posting portraying several themes simultaneously is given below:

“The first class is very important for our teaching practice (LL) since the first impression you leave for your students or your regulations set in the first lesson are all very influential in our later teaching I have consulted my supervisor about this before and he gave me some very practical suggestions, such as signing a contract with the students to state your

expectations and also establish a professional figure (IATMS) (SA) in the first lesson, I would also like to hear more suggestions from group-mates: do you have any ideas about the first lesson”? (Q.)

The above posting not only asks a question (Q), there is a question mark for this function; it also discusses ‘instructional approaches, teaching methods and strategies’ (IATMS) by discussing the signing of a contract with students for classroom expectations; and demonstrates ‘self-awareness and self-evaluation’ (SA) by considering that it is essential for a teacher to develop a ‘good, first impression’ in order to be a professional figure or persona from the outset. Also, there is an aspect of ‘Life /Logistics’ (LL) in the posting as it refers to ‘teaching practice’ and the ‘first class’ taught with students.

Thus, for the quantitative analyses, each posting was examined for the number of instances of meaning using the thematic subjects described above. Then, a final figure was calculated and presented as a percentage compared to the total number of postings. The percentages of thematic occurrence are given in table form in the results section. This was used to answer the following question: **what are the themes that emerge during reflection on practicum matters?**

Data analysis of grouping two.

Bain *et al.* (1999) offer a very detailed reflective thinking measurement instrument with a scale on levels of reflective complexity from ‘reporting’ at level one to ‘relating’, ‘reasoning’ and finally to ‘reconstructing’ at level five. This they entitle a ‘Five Point Reflection Scale’ (5Rs framework). These levels represent reflection that increases in complexity shifting from mere description and personal response to an issue; through to the application of theory and personal knowledge, and experience to understand, investigate, and transform practice. These authors propose that the reflection content and complexity levels are determined by both the level of reflective capabilities of the stakeholders and the issue in question. Despite, its apparent suitability, this model was rejected for the typology from Sparks-Langer *et al.* (1990) because the latter is wholly addressed to analyzing teacher education activities that promote reflective thinking (as part of the Collaboration for the Improvement of Teacher Education Program at

Eastern Michigan University), the former is not. The Sparks-Langer *et al.*'s (1990) hierarchical framework for reflective pedagogical thinking was thus applied to measure the level of participant reflection. In a similar study to this researcher's (focusing on the training of pre-service teacher participants), Hussein (2006) applies Sparks-Langer *et al.*'s (1990) hierarchical framework for reflective pedagogical thinking and finds it effective to clearly analyze discourse. The seven levels are provided below and are supported by examples from this researcher's data:

1. No descriptive language: Ha ha ha ☺
2. A simple, layperson description: *"I asked students to do group work"*.
3. Events labeled with appropriate pedagogical terms or concepts: *"I asked students to do collaborative group work"*.
4. The above plus explanations with traditional or personal preferences given as the rationale: *"A friend of mine recommended a classroom management practice called "power teaching". It is really useful I think"*.
5. Explanation of an event using pedagogical principle(s): *"According to the schedule, Tina and I should teach the reader Spiderman until 4th May. In our methodology course, we learnt that readers are a good tool because the language is contextualized"*.
6. Explanation with principle/theory and consideration of contextual factors such as student characteristics or community factors: *"I enjoy teaching English with readers because the language is always contextualized. But it is rather difficult to implement creative activities for reading with my students because they are quite active such that they like chatting with each other (of course, I don't think they were chatting in English). I am now striving to work out some activities in order to increase students' incentive to read and learn from Spiderman"*.
7. The above plus explanation with consideration of ethical, moral or political issues: *"I asked students to do group work. However, I divided them according to their seats. This is not the most appropriate way for grouping. I will observe students' performance and make some changes according to their learning abilities. I think this is very important for dealing with diversity in lessons. I want my students to learn to work cooperatively together in class, to help and value each other. For me it is our duty to instill these virtues in our students"*.

It can be observed that the levels applying the Sparks-Langer *et al.* (1990) typology range from descriptive reflection on technical matters, with more or less subject-specific lexis, to higher levels of critical reflection on broader issues relating to education i.e., ethical or social issues. Similarly to the links that grouping two has with the literature on reflective practice, Sparks-Langer *et al.*'s typology can be read in relation to the content of reflection as described by Zeichner and Liston (1996), namely 'technical reflection', 'practical reflection', and 'critical reflection': the 'technical' reflection includes those reflective criteria which involve teaching skills and strategies, and can be potentially found at all levels as a basis for analysis; the 'practical' reflection outlined by the literature in this field involves personal and educational principles, and is most likely to show up in levels three, four, five and possibly, six; finally, the 'critical' reflection promotes an analytical view of the educational setting in which the teaching occurs and goes beyond the here-and-now context to consider broader issues. It is likely to only be found at levels six and seven.

3.6. Ethical considerations.

It is important to strive for both reliability and validity in action research and other qualitative methods of enquiry. The 'trustworthiness' of an account needs to be emphasized to give value to the study's findings. To do this, this researcher was mindful at all times of the following four notions: credibility, transferability, dependability and confirmability. These are discussed further with regard to this study.

3.6.1. Credibility and transferability.

A key criterion in positivist research is internal validity. This can be offered in qualitative research by credibility: the surety that the study tests what it is intended to test. Another key feature is transferability, also commonly known as reliability: the knowledge that a researcher can apply the findings from another's study to his own context. For transferability to be ensured, enough contextual information should be provided so that readers may judge whether it is a similar setting to theirs.

Credibility.

For Silverman (2000), credibility can be ensured by linking qualitative research to an existing body of knowledge. In order to do this, as Yin (1994) argues, it is essential to use correct operational measures for the concepts being studied. This can be done by applying data gathering procedures and data analysis methods from similar well-established studies, and this was important in achieving consistency and coherence for this study. Throughout the data gathering processes, typologies from very well established researchers were applied and similar studies using these typologies examined. The reading of these studies also facilitated data comparison, which was an important guide when categorizing posts. The content of postings from these projects was used as a model to indicate what each category represented. In other words, although examples of categories are provided above for the presentation of the typologies, using this researcher's data, these are examples that are very similar in nature to those provided in these other studies. For example, below is a sample provided by Hussein (2006), to represent Sparks-Langer *et al.*'s (1990) level five of reflection 'Explanation of an event using pedagogical principle(s):'

"Interdependence in group work helps build a desire to help others learn; this sink-or-swim feeling keeps students committed to their own learning and that of their peers".

The following level five was provided from this researcher's data:

"According to the schedule, Tina and I should teach the reader Spiderman until 4th May. In our methodology course, we learnt that readers are a good tool because the language is contextualized".

It can be observed from the above that a classroom strategy is being described i.e., group work in one example and using readers in the other. The pedagogical principles emanating from these are commitment to help peers learn through collaboration and contextualizing language for teaching and learning respectively. Neither of these brings up political, social or ethical concerns outside the classroom, nor do they discuss the teaching community or student characteristics, which

belong to levels six and seven of the typology. However, these go beyond pure description and personal opinion, which are characteristics of levels two, three, and four.

Another feature ensuring credibility is ‘random sampling’ of informants. As Bouma and Atkinson (1995) state, this gives assurance that the sample is representative of a much larger group. Although this researcher became the supervisor of the participants involved in the study, the Institute where he worked and this researcher knew none of the participants prior to the study chose these participants randomly for him. There can therefore be no charge of researcher bias or purposive sampling related to any unknown influences that may undermine the methodology. Moreover, participants were for the most part, unacquainted. Only on one occasion did a pair know each other, and this acquaintance was relatively distant; it amounted to polite small talk when meeting before lectures or tutorials before this study took place. From analysis of the socializing postings during stage 1 of the case studies, it was evident that this distant relationship had no impact on the initial activities done. It is probable that this was because the interaction was not limited to small talk and involved more professionally oriented and affective-oriented content sharing.

To further make the data credible, it was triangulated. Online interactions were observed to examine the efficacy of the socializing mechanisms and the reflective mechanisms implemented. Also, participants were asked to give asynchronous, written answers to relevant questions at the end of each case study and these were collected to inform further practice. In this way, this researcher sought to confirm the conclusions from his observations of the data. This was particularly true for the first three questions: ‘Did you find the socializing activities helped you to get to know each other? Did you find the Valli/ Daloglu framework useful? Did you find the learning cycles useful? In addition, a very open question was asked at the end: anything else you would like to add? This was provided to give participants complete autonomy in the choice of topics for their responses so that feedback about the sites and moderator practices could be collated to improve the ongoing development of the system under scrutiny: as Holstein and Gubrium (2003: 13) suggest ‘interviewers are generally expected to keep their *selves* out of the interview process. Neutrality is the byword’ meaning that if interviewers reveal their thoughts to interviewees, the responses may become affected. In addition to this, an ‘audit trail’ in the form

of a detailed diagram (figures four and ten) is offered providing a clear step-by-step picture of the process of the research: particularly the decisions made and the procedures described.

Finally, another step taken to ensure credibility involved the data grouping for the thematic analyses conducted. Sample postings of the coding categories were subjected to inter-rater reliability. Two other raters were asked to categorize ten random samples for coding stage one (topic of reflection) and ten random samples for coding stage two (level of critical reflection). To do this, this researcher briefly gave a summary of the coding categories without examples from the data. Raters were then asked to read through the extracts and mark which category each belonged to. The inter-rater reliability was high for both classifications. Agreement was reached for the coding of each item for data grouping one by one rater and nine items by another; and nine from ten decisions for stage two by the two raters. The three discrepancies are explained below.

For the first rater task, the extract below was deemed as belonging to ‘Discussing instructional approaches, teaching theories, methods and strategies used’ as the rater explained that the writer was bringing up classroom management issues.

“In fact, the students were not supposed to talk or even quarrel in class. The students could quarrel in class freely reveals that the teacher could not manage class discipline well”.

However, this researcher had categorized this example as ‘Life /Logistics’ because the issue of classroom management is not expanded upon, only mentioned. Thus, there is no discussion as to how the students could be controlled.

For the second rater task, the extract below was deemed to be an example of ‘Events labeled with appropriate pedagogical terms or concepts’ by one rater. However, this researcher had labeled it ‘Explanation of an event using pedagogical principle (s)’ as the statement ‘so students can help each other’ refers to an educational principle involved in cooperative learning.

“Cheer up! Don't get frustrated so soon! I am sure that you can do it! For the groupings, I think you can use differentiated groups so students can help each other”!

Also, the following was described by one rater as ‘Explanation with principle/theory and consideration of contextual factors such as student characteristics or community factors’. However, this researcher had labeled it ‘Explanation with consideration of ethical, moral or political issues’ as it referred to saving the planet that seems to be more of a moral issue than a community one.

“Cooperative learning is being used here because there is a split along economic lines in this community and we want students to accept and value each other in spite of these differences. Such values may contribute, in the long run, to saving this planet”.

After discussions about these discrepancies, raters and this researcher agreed with all ten results from both tests. It is believed that this is appropriate concordance and demonstrates homogeneity, determining that the criteria used are appropriate for conducting the content analyses. The texts examined by raters for inter-rater reliability can be found in appendices four and five.

Transferability.

As Erlandson *et al.* (1993) argue, all research, even quantitative data is usually defined by its specific contexts. Consequently, if sufficient detail regarding the typicality of the context is provided, researchers can relate their own contexts to these, and hence generalizations and transferability can be facilitated. The collation and comparison of results from similar studies from various settings, facilitates a better, overall image of what is to be learned from these projects to give a ‘baseline understanding of multiple environments’ (see Gross, 1998). In order to ensure this aspect of transferability, sections on the research design and its implementation in addition to the operational details of the data collection and analysis are offered. In addition, details of this researcher’s educational context are offered. Further, researcher roles when

conducting the research are described and a description of the participants provided. Finally, in the discussion section at the end of the thesis, there is a reflective appraisal of the project, analyzing the effectiveness of the inquiry process. The diagrams presenting the research process (see figures four and ten) are also available to provide transferability.

3.6.2. Dependability and confirmability.

It is also crucial for social researchers to clarify their researcher roles. In particular, a great deal has been devoted to examining the insider/outsider debate in a wide range of contexts: anthropology (Aguilar, 1981; Narayan, 1993; Ohnuki-Tierney, 1984), ethnic studies (Beoku-Betts, 1994; Wilson, 1974; Zinn, 1979); family research (Christensen and Dahl, 1997; Olson, 1977; Surra and Ridley, 1991); feminist studies (DeVault, 1996; Finch, 1984; Reay, 1995; Reissman, 1987); management (Cassell, 2005); nursing (Carter, 2004); social work (Kanuha, 2000) and sociology (Griffith, 1998; Merton, 1972). Rather than two opposing dichotomous positions, the insider/ outsider concept can be seen in terms of a continuum of degrees ranging from complete insider to complete outsider. Consequently, Corbin-Dwyer and Buckle (2009) argue that often the qualitative investigator occupies a 'space between' insider and outsider. As insider, the researcher is a member of the population under investigation (Kanuha, 2000) and shares an identity, language, and experiences with the study participants (Asselin, 2003). As outsider, he is an aloof bystander with no membership within the group, a mere observer from the side. Adler and Adler (1987: 73) suggest that in this "ultimate existential dual role", researchers might struggle with role conflict (Brannick & Coghlan, 2007, p. 70). Due to his supervisory role at the Institute of Education, this researcher was an outsider as 'gatekeeper' of the block practice coordination and assessment but, because of his active fully affiliated membership of the online groups on Blackboard, he was also an insider, albeit with a different form of membership to the trainees.

At the beginning of the research, it was felt that this might be a problem, as trainees might not wish to interact with each other in the natural and spontaneous way that they might if this researcher were not present. In order to encourage participation, it was decided that at the beginning of each case study, and before block practice commencement, an email outlining why the site was set up should be sent (see figure eleven). This would state that this was not research

for research's sake but a project whose role was to investigate an effective means to offering support during a difficult time and training in reflective capabilities, which would enable participants to gain much more from the practical experience. This would also act as training for the portfolio reflection assessment task. As Powney and Watts (1987: 147) argue, research benefits from interviewees being 'fully informed from the start of what the researchers and the interviewees are trying to establish'. In this way, it was evident at the outset that this researcher preferred all involved to be considered as co-investigators. It was hoped that there would be a symbiotic relationship of this nature at all times.

As all of the interactions would be open, the ethical dilemma for the insider researcher of the use of 'incidental' data (Griffiths, 1985) would not be a problem. Griffiths (1985: 201) describes how she decided not to publish material from informal conversations and meetings. She states:

“To release such data would be a betrayal of trust and an abuse of access. Herein probably lies another key to the research position, and that is the need for an understanding of the difference between research and voyeurism”.

However, participants did need to feel that their postings were not constrained and that they could be honest in their reflections. Consequently, as part of the 'Getting to know you' activity for the building of the online COP, this researcher uploaded a biography giving a summary of his private and professional lives. This openness and sensitivity was warmly welcomed and participants demonstrated that they could be open and honest, as demonstrated in the data offered. Without these feelings of usage how could participants be expected to apply the sensitivity and honesty required for completing either the single or double loop learning cycles; these require what Dewey referred to as 'openness' and 'wholeheartedness' or focused, dedicated dispositions to render reflective learning effective.

Bonner and Tolhurst (2002) posit that three key advantages can be exploited as insider-researcher: the first is a deeper understanding of the culture under investigation; the second is not affecting the social interaction flow; and the third, is being more intimate with participants

facilitating the truth in the reporting of the research. With his dual role, a full research insider position would be impossible. However, it is believed that these activities aided in positioning this researcher in the space between insider and outsider and this has given the findings more depth as it has been possible to reflect extensively on each study and to use this experiential knowledge to construct a more thorough understanding of the kind of learning that occurred for participants and also for this researcher. This can, for example, be seen in the differences between figures three and four that present how the research developed; in the way the online models were constructed; and through the reading of chapter five, section five, which describes other, unplanned participant learning observed and reflected upon during the case studies.

Despite the benefits outlined above, there was the ethical issue that this researcher felt that he was at times projecting his own need onto participants – the need to conduct a process of enquiry, whether this was of benefit to participants or not. The research projects conducted were set up and maintained as a supplementary support for trainees, and this was done completely independently by this researcher but this project did become a part of the block practice supervision, thus questioning the voluntary nature of the participation. Participants may have felt indirectly coerced to cooperate in the research study. To counter this limitation and to quash the ethical dilemma felt, it is essential to stress that, although it did not occur; if a student had decided not to participate, this decision would have been fully respected. This was made explicit to all trainees at the outset. Also, it was made clear at the beginning of each case study that all data would be confidential as it would be recorded using pseudonyms so that any information displayed in publications (Brooke, 2012a; 2012b; 2012c) or at conferences (National University of Singapore, May 2013), could not be traced back to informants. This was explicitly stated in the introductory email with the personal privacy guarantee (already presented in this chapter), and each participant gave informed consent for the research before participation.

Another ethical dilemma experienced was that as insider and outsider, this researcher might have been tempted to affect trainees' interactions or to write up results in too subjective a way. This may have posed problems of bias towards the findings. Mindful of this, this researcher always strove to demonstrate that the findings emerged from the data rather than predispositions. Research notes and personal writings were separated into distinct journals and written throughout

the research process. In this way, a conscious effort to make observations and emotions distinct was made: the research notes offered descriptions and evaluations of the online interactions; the personal writings described this researcher's reactions to the research and thus included feelings about how it was developing. Therefore, it might be said that although objectivity was not completely ensured, observation was consciously separated from sentiment (see appendices seven and eight).

3.7. The limitations of the study.

McNamara (1990) and Noffke and Brennan (1988) argue that for trainees, the logistics of field experience makes having the time and opportunity for reflective practice development problematic. There might not be a suitable knowledge base at the outset that can act as a starting point for helping student teachers to first understand concepts of reflection and then apply them to their own teaching. This is particularly salient to this research as the field experience block practice occurred over eight weeks only, giving a very limited period of time for the research to be conducted. Consequently, it was found that there was a low percentage of participant reflection reaching a critical level, namely: 'discussing broader issues in education'. If the cases could have been more longitudinal, and the participants had had more time to develop their reflective practice, the extent of high-level reflection may have increased. This might be the focus of further studies and is further discussed in chapter six.

3.8. Chapter conclusion.

This chapter has provided a detailed presentation of the action research design linking this to the overall objectives of the study. It has also presented the theoretical frameworks of the study related to action research and to reflective practice. It then went on to analyze the action research methodology used. The context and participants were also described in detail and this was followed by a presentation of the data collection and grouping instruments used to facilitate analysis. Finally, a section on ethics examined concepts related to the credibility of the study in addition to ethical dilemmas and possible limitations. The next chapter presents the findings from this project.

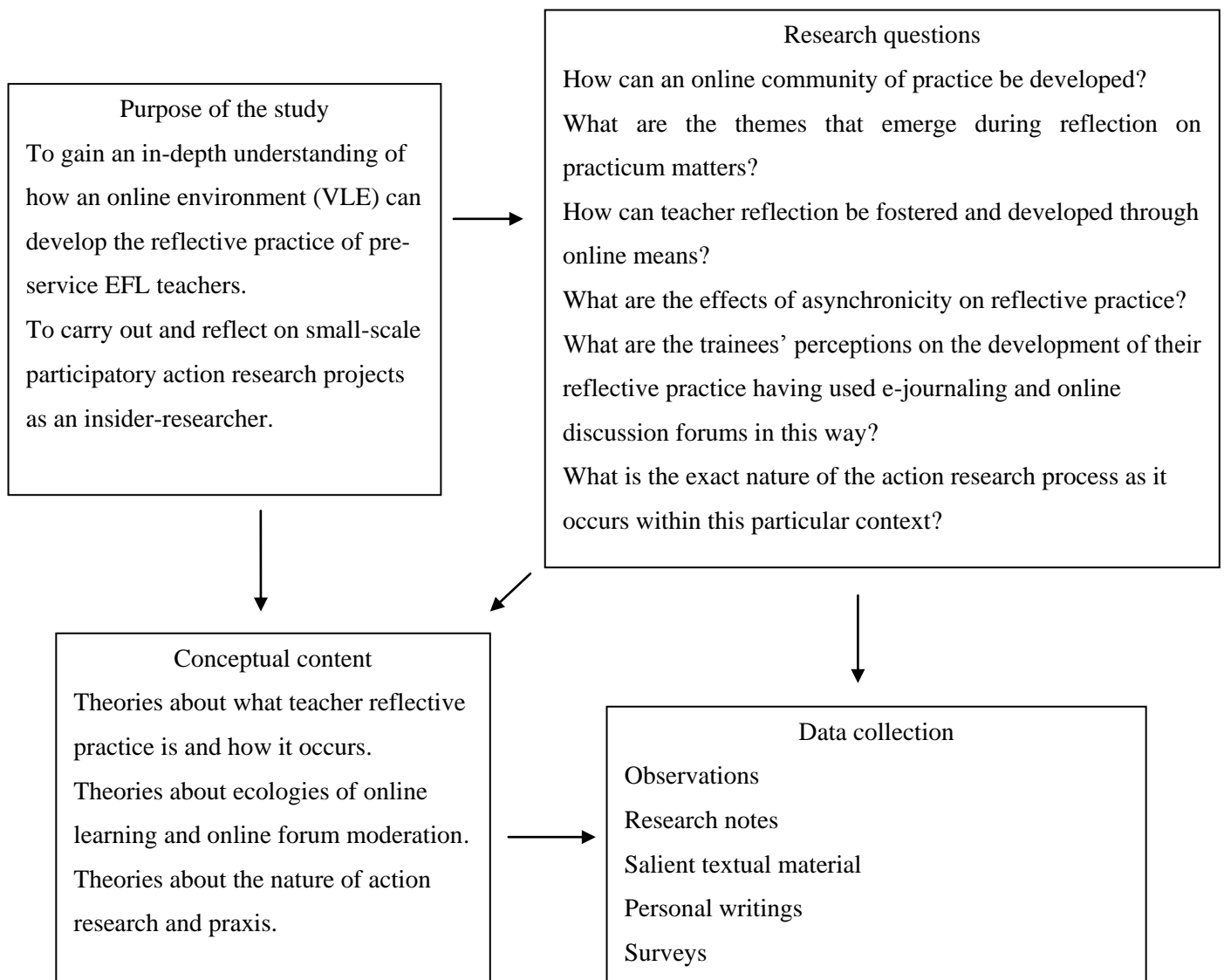
Chapter Four

Results

4.1 Chapter introduction.

The central research purpose of this study is to examine the effectiveness of e-journaling through blogging and collaborative communication using online discussion forums to develop the reflective practices of pre-service teachers conducting field experience block practice. This is represented in diagram form below:

Figure twelve. Expanded representation of the whole study.



One overall purpose framed this investigation:

To gain an in-depth understanding of how an online environment (VLE) can develop the reflective practice of pre-service EFL teachers.

Proceeding from the study's purpose, the research had the following principle objectives:

1. To examine how an online community of practice can be set up and developed;
2. To examine the nature of reflective practice in a diverse teaching community;
3. To examine the efficacy of an online environment's e-journaling and discussion forums for the development of reflective practice;
4. To examine how e-journaling and discussion lead to change in reflective capability.

In order to meet these objectives, the following questions were asked during the study:

How can an online community of practice be developed?

What are the themes that emerge during reflection on practicum matters?

How can teacher reflection be fostered and developed through online means?

What are the effects of asynchronicity on reflective practice?

What are the trainees' perceptions on the development of their reflective practice having used e-journaling and online discussion forums in this way?

In addition to the overall purpose, objectives and questions, there was a parallel and continuous reflective commentary analyzing the process of the action research of the study. This reflection examined how the action research paradigm could inform and guide this practitioner to achieve the purpose. The ongoing question with regards to the research paradigm conducted throughout the study was: **what is the exact nature of the action research process as it occurs within this particular context?**

4.2. Chapter outline.

The results are presented as follows:

The first set of data reveals what is involved in setting up and building an online community of practice to develop an appropriate environment for the sharing of reflections among participants. This seeks to answer the question: *how can an online community of practice be developed?* This process was found to be a pre-requisite to effective sharing online. Qualitative data are provided describing moderator activities during the beginnings of case study one, during which this researcher was discovering the answers to this question for the first time. Finally, the strategies discovered to be effective are presented as a model process for setting up a community of practice with novice VLE users who are also English language learners. This process is entitled the ‘developing online awareness and community model’.

The second set of data examines the nature of reflective practice in a particular teaching community, practicum for third year B.Ed. undergraduates in the Hong Kong state primary and secondary system. It answers the question: *what are the themes that emerge during reflection on practicum matters online?* To do this the percentage and number of the occurrence of each theme emerging from the forums over the three case studies are provided in relation to the total number of postings in table form. To illustrate the outcome of a student’s successful application of the online framework developed for this research, one posting pertaining to the category ‘discussing broader issues in education’ is provided and analyzed as qualitative data.

The third set of data examines the efficacy of an online environment’s e-journaling and discussion forums for the development of reflective practice. They seek to answer the question: *how can teacher reflection be fostered and developed through online means?* Qualitative data are provided describing moderator activities during the three case studies. Both e-journaling and discussion forums are analyzed and how they lead to change in reflective capability presented. The ultimate outcome of this part of the study is the ‘model for developing reflective practice online’.

The fourth set of data examines the question: *what are the effects of asynchronicity on reflective practice?* In particular, this section looks at ways this researcher exploited the

asynchronous online environment for the development of reflective practice. The use of Socratic dialogue was found to be effective. Thus, data revealing a model entitled ‘Socratic dialogue moves: a two-step procedure’ is provided in response to this question.

The fifth set of data answers the question: *what are the trainees’ perceptions on the development of their reflective practice having used e-journaling and online discussion forums in this way?* It reveals the perceptions of the trainees with regard to the models developed and to what extent trainees found these to be effective. This is presented through responses to five questions answered at the end of each case study.

Finally, the sixth set of data answers the question: *what is the exact nature of the action research process as it occurs within this particular context?* This is answered in two sections: the first 4.2., which represents the ‘*pre- and while-case study research narratives*’; and the second, 4.10, which is ‘*the post-research narrative*’. These sections reveal the process of action learning undertaken by this researcher and in particular, the way in which the study was perceived at the pre- and while-research phases of the study in comparison to the end based on research notes and personal reflections.

The data sets one, three, four and six are presented as a recount of this researcher’s living experiences during the study. This is done because these processes should be described in chronological order, in the same way that a story is told, in order to fully depict the nature of the study as a living, constructed learning experience. In other words, through the narrative, this researcher will explain how he learned how to set up and build the online environment’s e-journaling and discussion forums; then he will explain how he learned how to develop trainees’ reflective practice online through the implementation of reflective mechanisms appropriate to this context. Data set one, on the other hand, is more synchronic in nature rather than diachronic. This particular learning process was required fairly immediately and was repeated in the same way across all case studies. Data set two is quantitative and descriptive. It presents the themes that emerged from three hundred postings over the three case studies.

4.3. Nature of the action research process.

Pre- and while-case study research narratives.

The researcher's learning process during this action research was akin to one that shifted from 'unconscious incompetence' (unconscious of what we do not know) to 'conscious incompetence' (conscious of one's needs for development) to 'conscious competence' (employing new skills but being careful to monitoring these closely) to more or less 'unconscious competence' (skills start to be naturalized or second nature without the need for conscious monitoring). It could be said that this researcher moved from observer/ reflector to critical analyst. To progress through these states, the processes were purposeful and structured and at all times, they sought links between practice and theory.

During the 'unconscious incompetence' or pre-action research stage, this researcher was an observer in the sense that there was a general idea that something could be done to improve trainees' practicum experiences but that there was little awareness about how to do this. Research in the field, through deliberative reflection was conducted and a shifting into the 'conscious incompetence' stage began. In this context, this was a discovering of how reflective questioning frameworks were used to guide novice teachers in paper journaling (Daloglu, 2002; Hussein, 2006; Peters, 1991; Rolfe, 2001; Roth, 1999; and Smyth, 1989); and how reflective cycles (in particular, Argyris and Schön's model, 1978; and Kolb's model, 1984) might be designed to scaffold action research projects (Gibbs, 1988; Korthagen and Vasalos, 2005); through to an emerging awareness that some practitioners (Davis and Roblyer, 2005, Galanouli and Collins, 2008; Salazar, Zenaida Aguirre-Munoz, Fox and Nuanez-Lucas, 2010; Yang, 2009) had begun exploring with the online environment to do this. This researcher thought that this could be particularly effective during trainees' practicum experiences because trainees would be virtually connected, able to share their reflections and discuss issues collaboratively. Therefore, through a construction process of self-directed reading, an increasing awareness arose of the potential for this research and, before conducting any case studies, a definition to frame it was realized.

The 'conscious competence' stage started soon after the case studies had begun. By applying action research cycles, a skills and strategies were constructed. Solutions emerged in response to

puzzles; these were applied; trialed and evaluated; then kept, refined or discarded. This iterative practice leads the researcher to shift from observer/ reflector to critical analyst. When an action is performed for the first time, as an observer, one sees if it works, then, one reflects on its success. If a similar action is required at a later date, one already has a benchmark to compare it to and this reflection involves critical analysis. For example, the alteration to the Daloglu (2002) questioning framework introducing two retrospectives rather than one was made for the second case study. The original Daloglu (2002) asks trainees to consider what they have learned from their experiences. This is the only post-intervention stage. This was changed to 'my comments on the intervention I have carried out' as a first retrospective followed by a second retrospective 'my comments on the experiences I have had'. Thus, creating two past times, a near and more distanced one, which could enable trainees to think in terms of micro and macro-action research cycles or think in terms of particular interventions compared to the larger experience of the practicum period itself.

The action research cycles conducted by this researcher can be identified as ranging on a continuum of minor to major tasks. For example, the construction of both models (the 'developing online awareness and community model' and the 'model for developing reflective practice online') were major action research developments and consisted of other smaller cycles such as the slight alterations of Daloglu's (2002) questioning framework or the conversion of the single loop learning cycle to a flow chart diagram. On occasions, simple observations of trainee participation led to action, for example, the decision to break down the Argyris and Schön (1978) cycles to facilitate their use was based on the observation that trainees were not using this model as a full mechanism effectively. At times, feedback from trainee participants caused changes in practice and research developments, for example, an email from a trainee informing this researcher that the language tenor or register to be used in online postings needed to be established before interactions could take place, led to action. Participants were not sure if text-message language could be used or not and this prevented their first postings and discussions. Other actions, however, for example, the critical analysis of the postings for coding required more external stimuli. These stimuli discovered were the methods of defining and judging the levels of trainee reflections from similar studies. This meant a move away from merely observing interaction to making meaning from the postings by manipulating their sense and

interpreting them using established typologies from the field (Ho and Richards, 1993; Shulman, 1987; Sparks-Langer *et al.*, 1990). By interpreting the blogs and discussions using these typologies, it was felt that the research would be better-anchored in the field of developing reflective practice and thus, these results could be transferable and compared to other contemporary studies (Davis and Roblyer, 2005, Galanouli and Collins, 2008; Salazar, Zenaida Aguirre-Munoz, Fox and Nunez-Lucas, 2010; Yang, 2009).

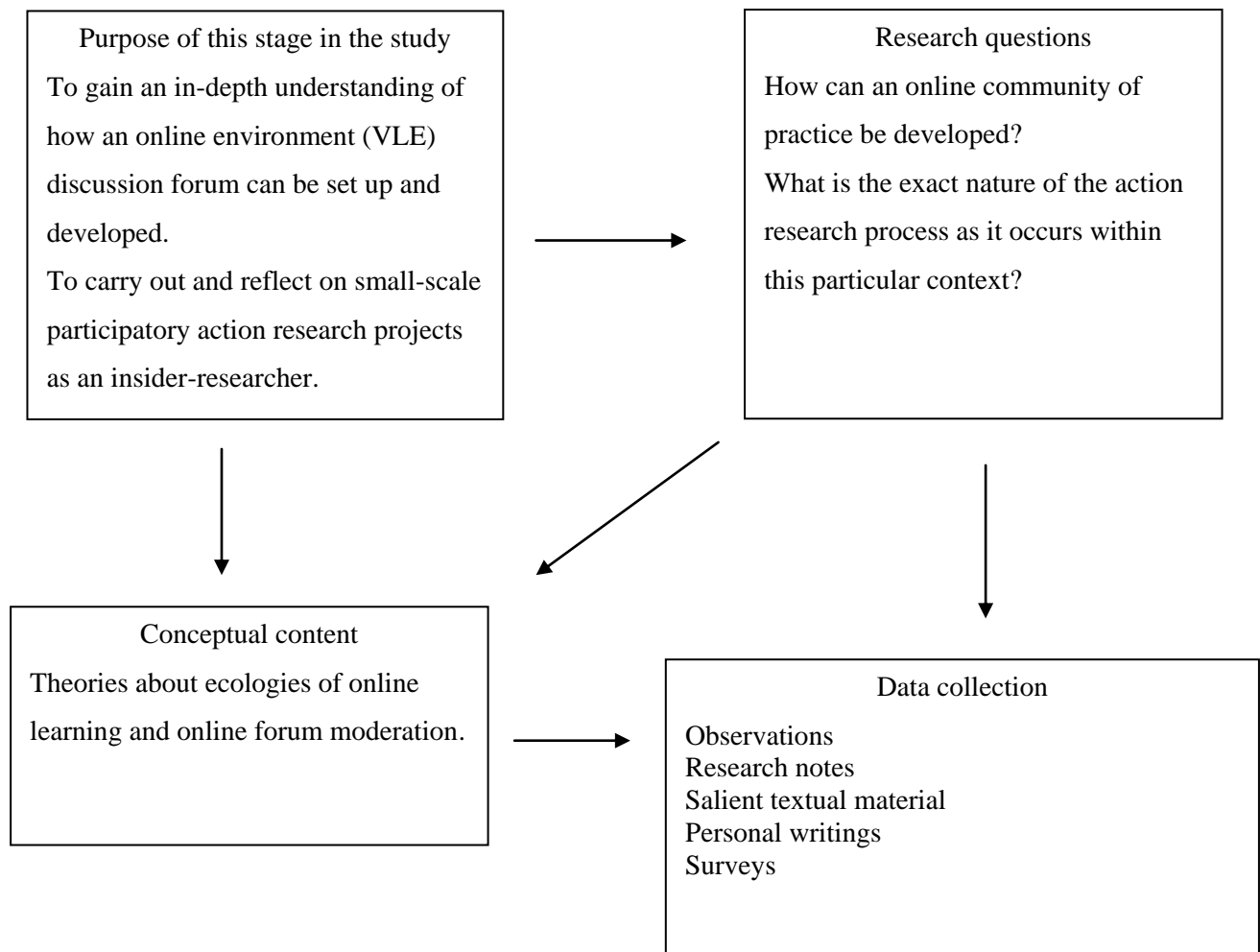
In sum, it was only through self-directed reading followed by trial and error practice that the repertoire of skills and strategies presented through the data emerged. I would argue that during the third case study, some of these practices had, to some extent, become like second nature with repeated practice. For example, the following could be done without much recourse to my notes: facilitating online interaction by setting up the model developing online awareness and community; asking trainees the questions belonging to the single learning loop, flowchart diagram; and facilitating reflection online by applying asynchronous Socratic dialogue in the patterns presented. This knowledge had to a large extent become engrained through experience and consequently, was available tacitly for action at any required moment.

4.4. Introduction to sections 4.5 to 4.11.

In the following sections the results are presented. They show the nature of blogging, in particular the themes that novice trainees are most concerned about in this researcher's teaching community. They also reveal findings on how to develop and maintain an online community of practice, which is able to promote online blogging and collaboration. They then go on to discuss a model developed to scaffold the implementation of the Argyris and Schön (1978) cycles online. Following that, the effects of asynchronicity, in particular how this practitioner used it to apply Socratic dialogue to postings to aid reflections is revealed. Finally, the perceptions of the twenty-four trainees are presented through answers to five questions posed at the end of each of the three case studies.

4.5. Developing an online community of practice.

Figure thirteen. Representation of one aspect of the study.



Section introduction.

The central research purpose of this study is to examine the effectiveness of e-journaling through blogging and collaborative communication using online discussion forums in the development of the reflective practices of pre-service teachers conducting field experience block practice. If teacher reflective practices are to be developed through blogging and collaborative communication, participants need to engage in communication. In this section I will examine the nature of the online environment and in particular, how trainee participation and interaction was stimulated and the form that it took. The outcome of the research into developing participation and interaction is a model consisting of several activities designed to push the online community

from the initial beginning stage to the knowledge construction stage (see Salmon, 2002). It was essential that this evolution occur rapidly as the practicum would only last eight weeks. This aspect of the research belongs to cycle one in figure three or ‘start of online postings’ and ‘is the COP able to grow organically?’ in figure four.

This researcher and participants in this study were novice users of asynchronous discussion forums. This was immediately demonstrated as the question whether it was more appropriate to use SMS-texting language or formal academic language or a hybrid of the two emerged. This issue arose not because of trainees’ lack of communicative competence but because of a lack of insight from this researcher. In order to set up the online community an email had been sent out prior to the project (see methodology chapter) but this obstacle to the research beginnings had not been predicted due to a lack of experience in online moderation. In addition, after reflection and further reading (Kreijins *et al.*, 2003; Salmon, 2002) at this stage on how to moderate the online environment, it was decided that more than just a welcoming message was required if community-building was to be effective and timely. Practicum duration was only eight weeks and if participants were to share their thoughts openly and to conduct reflective analyses of their own and peers’ experiences online, a systematic, well-conceived approach to starting up the community was needed.

In light of the feedback and reflection, a ‘model developing online awareness and community’ was created using the discussion board at the beginning of case study one. It was then more or less repeated during the two case studies that followed. (More or less is used here because during the final case study, participants decided themselves to share their experiences of critical incidents after the ranking activity. This is supplied in the appendix section as an example of collecting threads by date of posting, appendix 4). It is a process of four activities used as icebreakers or interaction facilitation tasks. The online interaction of eight students from case study one was captured on the discussion board to exemplify how these icebreaking activities could aid the initial construction and development of an online community. This began with an initial ranking task, which could serve two main purposes: the first was to set the level of academic formality requested; the other to evoke reflections on the potential advantages of the online environment. It was then followed by a socialization task, which meant that participants

could share chosen aspects of their personal life histories. This was conducted because data from Moule's (2006) study revealed that some participants might tend to keep their identities hidden if not stimulated to share personal life stories. It was also because previous research (see Turkle, 1997) exposed the emergence of a different identity: an online persona in contrast to a face-to-face persona. This is also related to the notion of social presence (see chapter three). Thus, by asking students to choose what they wished to share online, they could commence building their e-identities. The final task conducted was an activity asking participants to find similarities about each other. This helped to make commonalities explicit and build ties between students. This was also considered important as central to the community is the building of relationships to create an effective social learning framework (Lave and Wenger 1991). The 'ranking activity', 'socialization activity' and 'find a similarity activity' are presented below and these are then compiled to form the 'developing online awareness and community model'.

The ranking activity.

A ranking activity is a task that requires participants to prioritize certain elements under a superordinate term for relative importance. The outcome of this ordering should then be justified and substantiated with explanation. This ranking activity involved statements brainstormed by this researcher concerning the potential benefits of online collaborative learning. These statements were chosen because they would offer novice trainees ideas about how they might exploit the online environment for the development of their reflective practice. In other words, learning what one thinks about an issue by writing down one's thoughts was highlighted; so was learning by reading comments on one's thoughts from peers. In addition, the concept of sharing lesson plans and other teaching materials openly was highlighted to encourage collaboration and openness. It was decided that this number of elements was best, as a discussion justifying choices would ensue. If there were too many elements, the discussions would become too complex. If there were too few elements, there might not be enough data for a discussion.

The ranking activity commenced as an individual task. As Salmon (2002) notes, during stage one, it might be necessary to motivate participants by engaging them in an individual task first as individuals need time at the initial stage to create their own online identities to function within the community and lead to mutual engagement and sharing of practice. The activity after that

was a discussion task based on this individual work. This became a platform for discussion. This proved to be effective as that of the language of the ranking activity guided the language formality of the postings. In addition, discussions about these statements were generated with more or less the same language register. Each participant was engaged and responded; a brief discussion comparing responses and justifying decisions ensued. The top three choices were a, b and c, in that order (see appendix nine for an extract).

Rank 4 statements concerning online learning in order of importance:

- a) I am able to learn by writing about my thoughts and experiences on the discussion forum;
- b) I can learn from others' responses to my thoughts;
- c) I am able to learn by reading about the others' thoughts and experiences;
- d) It is beneficial to upload and share lesson plans and teaching material.

The socialization activity.

In face-to-face situations, verbal and visual cues are present. These are not present online and the asynchronous nature of the environment means that the spontaneity found in face-to-face introductions is absent. Despite this, Curtis and Lawson (2001) posit that effective collaboration does occur online if the virtual environment is exploited effectively. Salmon's (2002) teaching and learning online model proposes that the second stage of development after 'access and motivation' should include e-activities connected to online socialization that encourage sharing and interaction. This stage for Salmon (2002) is 'familiarization and bridge building'. Having already implemented the ranking and discussion activities, it was believed that an exchange of personal information to facilitate trainee-trainee and trainee-researcher familiarization would be effective. It lasted for three days during the first case study. This researcher first uploaded a posting of himself, including some information on previous study, career events and some personal information about family, hobbies and interests. Trainees were then invited to share the same genre of information as self-introductions (see appendix ten for an extract of this activity).

During the socialization activity, individuals commenced the building of their online identities:

“I have got a great passion for literature, which I think makes you think about your life and enables you to see the world more critically”.

Extensive, often quite personal information about a topic was given:

“As you know, there is the one child policy in the mainland. I have no brothers or sisters: I always longed to have an elder brother”.

Throughout this activity, the language used by participants was positive and encouraging:

“It's such fun reading everyone's self-introductions [...]. We got lots of interesting ppl here. That's so great”!

Trainees' willingness to share personal information and show interest in each other indicated that community-building was occurring at this initial stage. For the first case study, there were thirty-one threads uploaded by the eight participants during this activity. This number of threads demonstrated that trainees were eager to read about and reply to their peers' and this researcher's postings. However, the bridge building completed during the familiarization stage was implicit. According to Kreijns *et al.* (2003), the tutor must play a significant role in encouraging bridge building, and this leads to more effective learning later on. It was therefore noted that more could be done than this open familiarization task at this stage to explicitly further the bridge-building process. This development was effectuated by a follow-up e-activity to the sharing. It has been entitled 'finding a similarity'.

The finding a similarity activity.

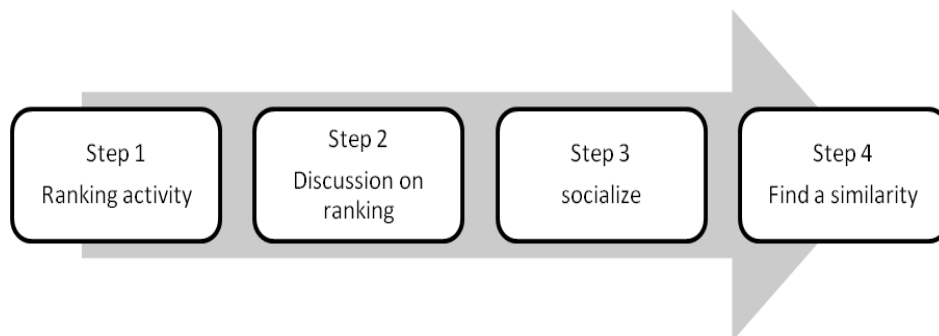
As mentioned above, part of Salmon's (2002) second stage is 'bridge-building'. This was indirectly started with the familiarization activity as demonstrated from the trainee citation above 'we got lots of interesting ppl': this statement collectivizes the individuals. However, a further activity was implemented to ensure that trainees felt connected. Students were asked to skim and

scan all of the thirty-one threads from the previous socialization activity and to find and signal commonalities with their peers and this researcher (see appendix eleven for an extract). Each participant would do this by uploading a new posting to the forum. Participants indicated several commonalities. It became clear that one other participant had been born in mainland China and would have liked to have a brother or sister, three other participants from this case study played the piano, two other participants played table tennis, and all members enjoyed reading English literature. This enabled the community to grow by deepening knowledge of shared commonalities and encouraging a collective consciousness. As Wenger (1998) posits, ‘identity’ in communities of practice are based on the reciprocal connection between the individual and the social group. It also served as a training tool for the use of the thread system and enabled these novice users to become acclimatized to using the discussion boards so that they would be more competent with these for the upcoming discussions.

The ‘developing online awareness and community model’.

The process described above has been compiled and the ‘developing online awareness and community model’ created (see figure fourteen). This model is a set of online e-activities that might be applied to develop a community of practice with participants who are both novice users and English language learners. It was compiled during the first week of case study one and then reused successfully for the following two case studies.

Figure fourteen. ‘Developing online awareness and community model’.

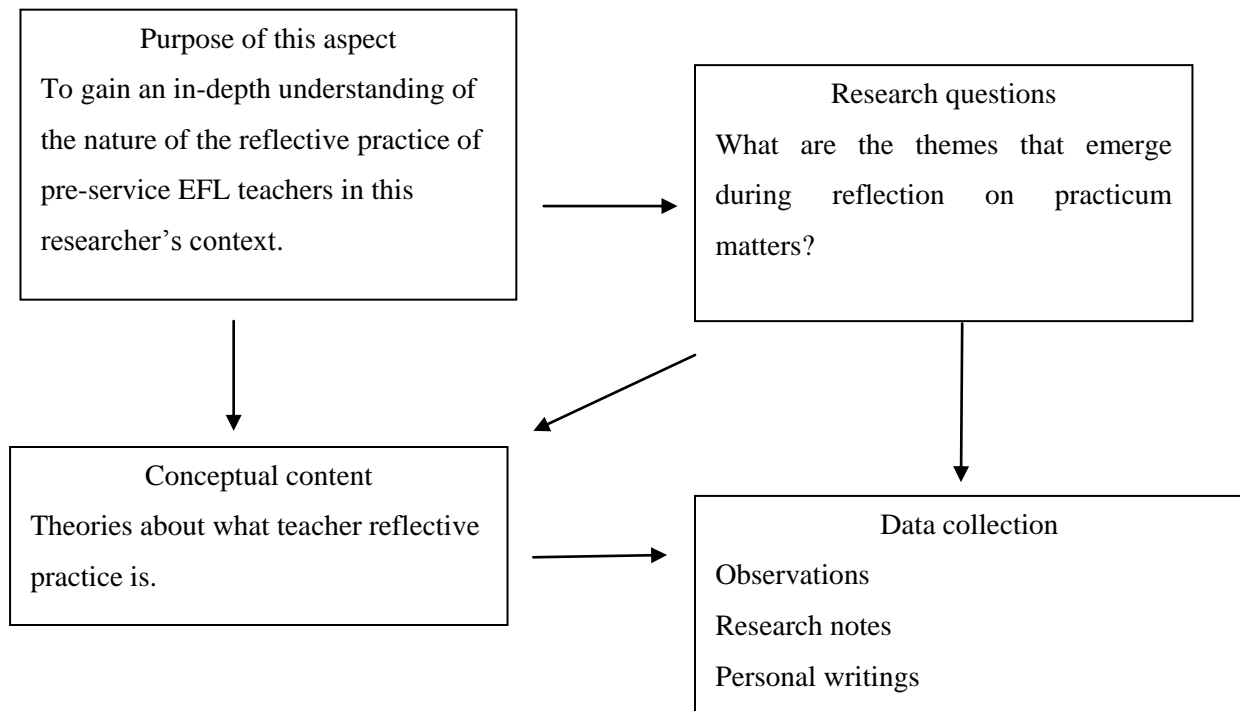


Section conclusion.

In this section, how the online interaction was developed during the first case study has been presented. This resulted in the construction of a model: the ‘developing online awareness and community model’. The model consisted of an initial ranking task to set the level of academic language required and to raise awareness about the potential advantages for these participants of the online environment. It was then followed by a socialization task with participants openly sharing chosen aspects of their personal life histories. The final task conducted was a find a similarity e-activity to explicitly build bridges between trainees. Thus, the following research question was discussed: *how can an online community of practice be developed?*’ As a novice online moderator of discussion forums, this researcher had no idea at the beginning of case study one how the online interaction would start. Salmon (2002) and Kreijns *et al.* (2003) emphasize that the role of the moderator in the familiarization and bridge building’ stage is essential. There should be a mindful approach to the design of the online conferencing system because trainees tend to interact more with their peers if there is a culture of trust and mutual respect. Gulati (2008) suggests that without an emotional connection with their online peers, trainees will not contribute regularly. Using my knowledge of English language teaching in the classroom, I was able to initiate these activities. Often, at the beginning of a face-to-face course, when course participants are unfamiliar with each other, these activity types can be utilized as icebreaking strategies. After the first week of the first case study therefore, I set up and observed the application of this model. As already noted, it was then successfully applied during the following two case studies in the same way.

4.6. What are the themes that emerge during reflection on practicum matters?

Figure fifteen. Representation of one aspect of the study.



Section introduction.

In this section, I will begin with a presentation of the data to present the content and frequency of topics emerging throughout the three case studies conducted in the form of e-journal entries or discussions. These themes were carefully collated and coded using typologies from Ho and Richards (1993) and Shulman (1987), which corresponded well to the data observed from this study. The process of using these typologies has been described in detail in the methodology chapter. The data is presented in tabular form and then commented on using descriptive figures. By revealing the content and frequency of the topics, table four helps to describe the nature of the reflective practice in this researcher's teaching community as it reveals what preoccupied these English language teacher trainees as they reflected on field experience events.

Table four. Percentages and number of topic range (total of three hundred postings).

Topics	Number of occurrences	Percentage of occurrences
Life /Logistics (personal life situations or logistics of field experience and/ or training program)	783	40%
Content Knowledge (subject matter knowledge related to the body of knowledge in TESOL such as linguistics and phonology)	78	4%
Discussing broader issues in education	39	2%
Discussing instructional approaches, teaching methods and strategies used	392	20%
Demonstrating self-awareness and self-evaluation	529	27%
Asking questions about teaching and requesting advice from peers	137	7%

Description of the quantitative data.

Table four describes the nature of reflective practice in this particular context by presenting the proportion of the themes raised over the three case studies from a total of three hundred postings. It can be observed that the majority of the postings (40%) were concerned with Life /Logistics (personal life situations or logistics of field experience and/ or training program). The second most-common theme was ‘Discussing instructional approaches, teaching methods and strategies used’ (20%). The next most-common theme was ‘Demonstrating self-awareness and self-evaluation’ (27%). The next three themes only made up thirteen percent of the total. These were ‘Asking questions about teaching and requests for advice from peers and the trainer’ (7%), ‘Content Knowledge’ (4%) and ‘discussing broader issues in education’ (2%).

Discussions were primarily concerned with the practical problems trainees were facing with timetables, supporting teachers and the goings-on of the classroom (life/ logistics) including teaching methodology and practical teaching strategies (discussing instructional approaches, teaching methods and strategies used). These results coincide with those reported by Simonsen, Luebeck and Bicean (2009) whose research focused on the training of beginning science and mathematics teachers in a Computer-Mediated Communications-based environment such as the one developed for this project. Similarly, it was found that pre-service teachers are more concerned with the practical problems faced every day. Despite this, there was also a significant quantity of postings regarding 'self-awareness and self-evaluation'. As noted in the methodology chapter, postings for 'self-awareness and self-evaluation' were predominantly observed to be descriptions of a problem that a trainee experienced or an evaluation of an improved situation. These sometimes contained a mental verb such as 'think' followed by the projected comment *e.g., I think I should use more visuals for teaching vocabulary; I think my lesson went well today.* This means that trainees were involved in small-scale action research projects and working with the single loop learning cycle. In addition, as the findings demonstrate, postings related to 'discussing broader issues in education' were relatively rare (only two percent of the total) and these tended to appear late on during block practice, starting no earlier than during forum six and sometimes appearing as late as forum ten or eleven when block practice had terminated.

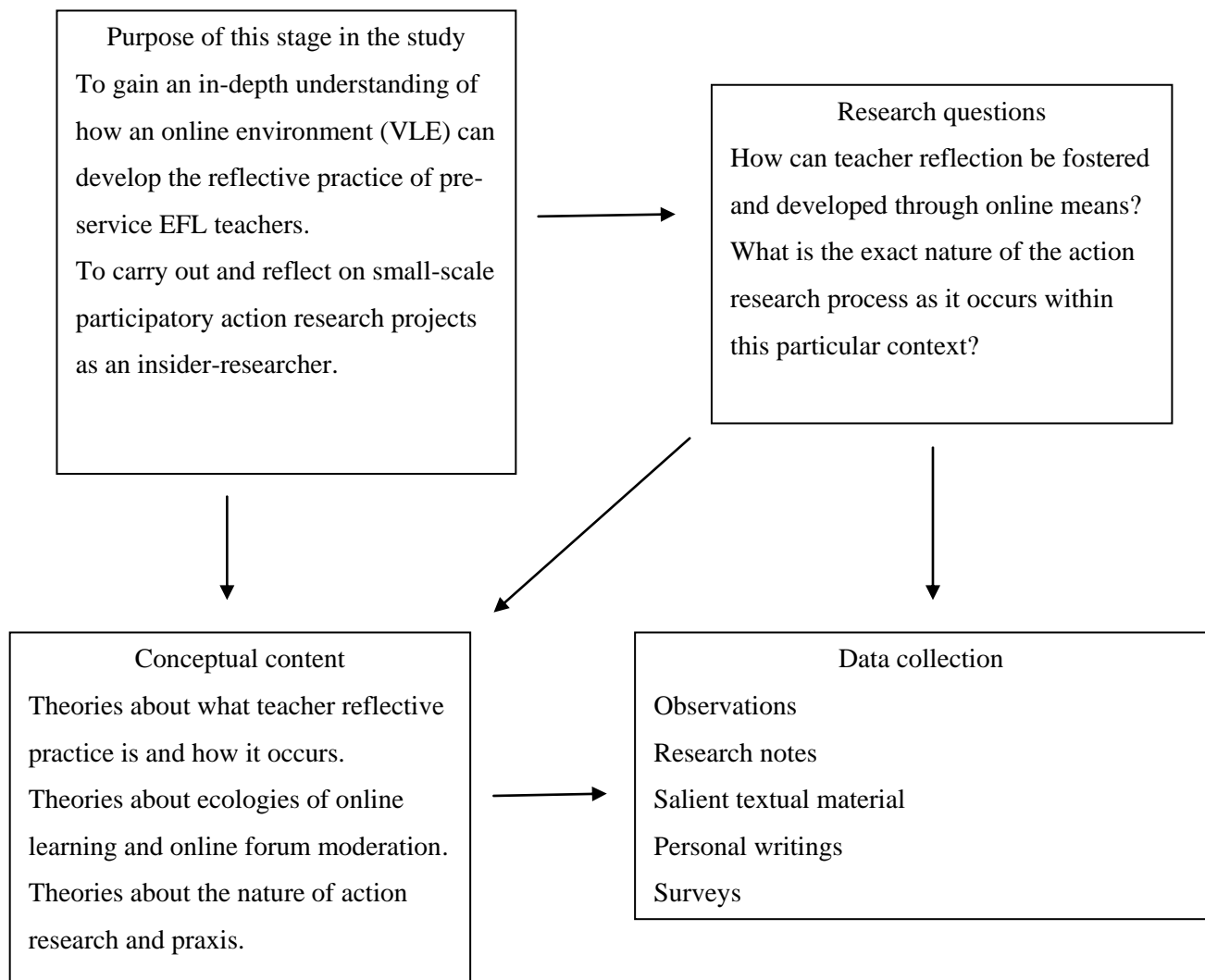
Section conclusion.

In this section, I have presented the themes emerging from the e-journaling and discussions during the three case studies conducted. This has been done to describe the nature of the reflection of the online communities developed in this researcher's context.

In the next section of this results chapter, the efficacy of the online environment's e-journaling and discussion forums for the development of reflective practice are examined.

4.7. Fostering teacher reflection through online means.

Figure sixteen. Representation of one aspect of the study.



Section introduction.

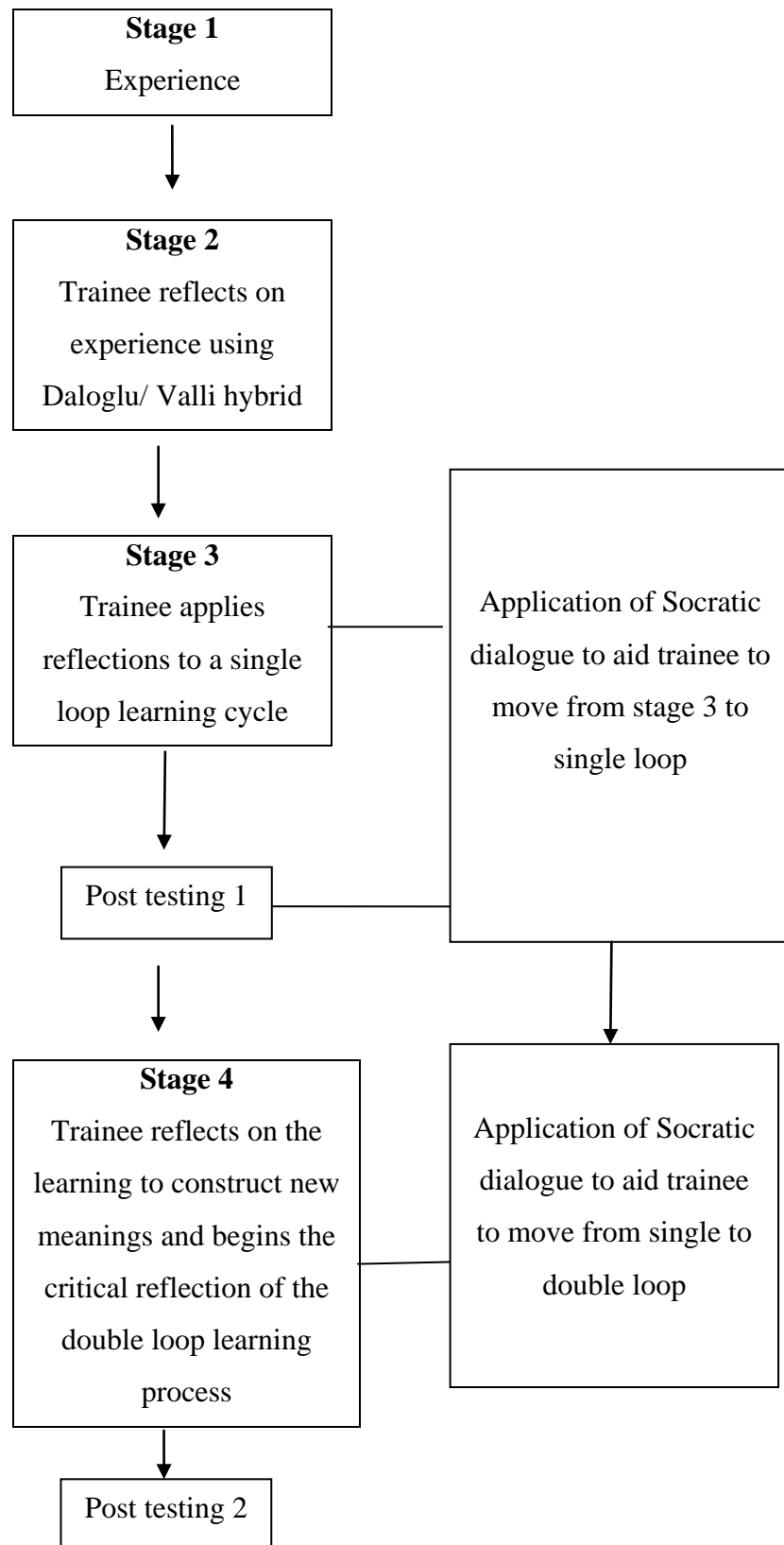
The central research purpose of this study is to examine the effectiveness of e-journaling through blogging and collaborative communication using online discussion forums in the development of the reflective practices of pre-service teachers conducting field experience block practice. In this section, the focus is particularly on how e-journaling and discussion lead to change in reflective capability; in particular, by guiding trainees to apply reflective mechanisms and posting their reflections online for fellow participants to read and discuss. This part of the research belonged to cycle two in figure three or ‘does reflection lead to refined ideas/ deeper learning?’ in figure four; and followed on from the ‘developing online awareness and community model’. Once the COP had been set up through the ‘developing online awareness and community model’, training in reflective practice commenced. This was a relatively gradual process, over eight weeks, for all three case studies conducted. As noted in section 4.5, postings related to ‘discussing broader issues in education’, which was the ultimate objective of the reflective process implemented, were rare (only two percent of the total). Qualitative data of selected participant reflections are provided to demonstrate how the reflections evolved over the process adopted.

The initial feedback from trainees at the beginning of case study one indicated that using a model such as the double loop learning cycle from Argyris and Schön (1978) with novice reflectors was unrealistic. Without prior training, problems arose moving from the ‘reflection’ to ‘generalization’ stages within the single loop, what Kolb (1984) refers to as ‘abstract conceptualization’. This may be due to the fact that trainees lack the practical experience and educational knowledge required to connect their own experiences to the broader perspectives of experts in the field. In addition, trainees found the ‘paradigm shift’ in the double loop learning cycle a very abstract concept to understand and apply. This could be because of the difficulty of the language that these ESOL teacher trainees encountered or it might be due to the fact that it is difficult to understand one’s dispositions (see Bourdieu, 1984) without a longer time frame or training in reflection. Without understanding of our own dispositions, it is not possible to move on to replacing these with new, emerging dispositions. This is what Melville, Bowen and Passmore (2011) argue ‘alert novices’ are capable of (see chapter two). It is only when we have understood what underlying principles guide our actions that we can consciously focus on

changing them by applying new dialectical and deliberative reflection, and this is the purpose of the stage ‘paradigm shift’.

A structured reflective process to systematically build up trainees’ reflective skills was therefore developed. It is one of the major reports from this study as it was the procedure designed by this researcher to scaffold reflection and to guide trainees to the point where they might be able to follow the entire double loop learning cycle from Argyris and Schön (1978). This is described in diagrammatical form below and has been entitled the ‘model for developing teacher reflective practice online’. The diagram presents the chronological order in which the frameworks and cycles were distributed to trainees to develop their reflective practice. This procedure was developed over the first case study and reutilized after that in the following two cases.

Figure seventeen. Model for developing reflective practice online.



In the next section, a selection of online postings serves to illustrate the stages of the diagram above.

Stage one of the model for developing reflective practice online.

As indicated in the diagram, the first stage in developing reflective practice is for trainees to have an experience during block practice that they perceive warrants further attention. This is the beginning of a construction of knowledge focusing on understanding the nature of a puzzle (the term problem is sometimes used but discouraged during this research due to its negative connotations). Trainees are aware that they are agents for change at this stage.

Stage two of the model for developing reflective practice online.

At stage two, as indicated in the diagram, students are asked to reflect on the nature of this experience using the framework from Daloglu (2002) and applying deliberative reflection (Valli, 1993) to it; in other words, to read about similar experiences or methods to deal with this experience from outside expert sources. In relation to the Argyris and Schön (1993) model, this is ‘experience’, followed by ‘reflection’ from the single loop learning cycle. Using the Daloglu (2002) questioning framework as a scaffold, the ‘reflection’ stage became a period of time during which trainees were successfully comparing their knowledge or lack of knowledge about present and past personal educational experiences. This relates to Daloglu’s (2002) questions:

What did I already know but benefited from observing/ teaching in school?

What did I not know but learnt from my observations/ teaching in school?

The reflections on these questions were then submitted as online postings. The following is an example:

“After the first week’s teaching, my original teaching philosophy: making the students’ learning as enjoyable and meaningful as possible wavered a little bit. Under the pressure of frequent exams, my teaching plans need to include quite a lot of reading, vocabulary, and grammar exercises to prepare students for the exams”. (Wendy)

The next question in the Daloglu (2002) framework is ‘what I would like to implement’ in response to this puzzle. Thus, these reflections were moved on from observations to consider how solutions might be trialed to deal with these emerging issues. Another student (Rain) moved the discussion on from Wendy’s initial observations:

“I think we can still use interesting materials (e.g. songs, movies etc.) to teach our students. Probably the problem is how we strike the balance (well, ya the pretty blur term balance again) between ‘drilling’ and ‘meaningful tasks’”. (Rain)

Rain answers Wendy’s posting above and the puzzle has now become a potential idea for collaborative investigation. After ‘reflection’ follows ‘generalization’ in the Argyris and Schön (1978) cycle. This stage was facilitated through implementing Valli’s (1993) notion of ‘deliberative reflection’ (the application of relevant expert practitioner knowledge from the literature) to the issues emerging. Again, it is Rain who adds to the discussion:

“Nunan (2005) has proposed a continuum of task - on one of the ends is the very authentic task whilst on the other is some "drilling-like" ones. In words of him, we can still make the "drilling-like" tasks communicative (at least, more communicative than the traditional dull drilling exercise). If you have time, just have a look at Ch 3 on the required reference we bought for the ELT curriculum. You might get some hints about how to make drilling more communicative and meaningful”. (Rain)

Deliberative reflection, offered by Rain, conveyed to Wendy that this dilemma was a common one. It is one which has led expert practitioners through their own discoveries to seek a solution. The generalizing of this issue might be acknowledged as the search to make ‘traditional’ methodologies (in this case drilling exercises and rote learning) ‘more communicative and meaningful’.

From this point in the process, trainees were able to move on to the next stage in the Argyris and Schön (1978) cycle, which is the ‘testing’ stage in the single loop. They thus trialed potential solutions to the issues raised and followed these by reflections on the success of their interventions. This final reflection applied a reworded version of Daloglu’s (2002) last question: *‘what are my comments on and reactions to the intervention?’* This makes up post testing one. As already explained, the original construct from Daloglu (2002) was changed from *‘what are my comments to the experiences that I have had’* because it was important to add an additional time frame to the reflections.

The excerpt below from Helen was part of the discussion on making drilling more communicative. The trainee first drilled the word to a student quietly so that the other students in the class were not able to hear the word. The student then began to play a guessing game for the whole class by describing the word. It is this student or a guessing student who says the word out loud to the class at the end of the activity. The trainee teacher may then repeat the pronunciation of the word when the guessing is complete. Helen writes how she developed this activity to make drilling more student-centered:

“In my class, I tried a game: ‘New Words of the Day’ because some students showed me English words that they wanted to know from our text book. I whisper the word to a student who takes the courage to describe the word in front of the class. If the class guesses the word, the describer gets one point. The reaction of the students to the game was great. They were motivated and attentive in class. A lot of students raised up their hands to answer”. (Helen)

Through the process of collaborative enquiry, there has thus been a construction of knowledge about an aspect of practice. It is possible through this extract to witness a refined and growing informed practice about the educational system in place, which is what the single loop learning cycle is meant to facilitate. An online discussion continued with this researcher and this is

presented in appendix twelve, as a demonstration of the use of online moderator Socratic dialogue moves.

One caveat emerged about the single loop learning cycle at this stage in case study one. Several comments about the difficulty of integrating the Daloglu (2002)/ Valli (1993) hybrid to the Argyris and Schön (1978) single loop cycle were made. This was because the cycle graphics were found to be difficult to exploit spatially with these reflective mechanisms. This was reacted to by converting it to a flow diagram (see below in figure eighteen) for trainees to use. It was found to be more practical to follow as a visual representation.

Figure eighteen. Flowchart developed to scaffold the single loop learning process.

To help you to connect Daloglu (2002), Valli (1993) and the Argyris and Schön (1978) single loop learning cycle:

Experience.

Please cite an important experience that you have had in your field experience.



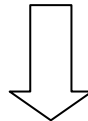
Reflection.

Please reflect on the experience by applying Daloglu's (2002) first and second points: *what did I already know but benefited from observing/ teaching in school? What did I not know but learnt from my observations/ teaching in school?*



Generalization.

For the next stage in the process of reflection 'generalization', please use Valli's (1992) notion of '*deliberative reflection*' to base your experience in theory too. Please think about any books that you have read, lectures you have attended or advice from peers or tutors that you have received about this experience that can help you to understand it more fully? If there is, comment on how it helps you to do this.



Testing.

The next stage, 'testing' (Argyris and Schön, 1978) incorporates Daloglu's (2002) third point: *what would I like to implement in my own teaching?* Please try out your new idea (intervention in accordance with the Argyris and Schön single loop learning cycle).



Post-testing 1.

The next stage incorporates a slight change in Daloglu's (2002) fourth question and is used to complete the single loop learning cycle: *what are my comments on and reactions to the intervention?* Have you made any discovery and if so, what can be learnt from this? In other words, what new practice did you implement in your teaching? Reflect on the outcome of your intervention: have applications been successful? Why? Why not? Make a record of the applications and subsequent changes you have made.

Stage three of the model for developing reflective practice online.

It can be observed in figure seventeen that at stage three in the scaffolding of reflective practice, the trainees have passed through a single loop learning process. At this stage, as also evident from figure seventeen, this researcher had been using asynchronous Socratic dialogue to stimulate online reflections and discussions. The use of this strategy is presented in the section 4.7 to respond to the question: *what are the effects of asynchronicity on reflective practice?* To go beyond post-testing stage one, what occurs is a crossing over to a ‘paradigm shift’ and the ‘new understanding’ of the double loop learning cycle embodied in ‘stage four’ of figure seventeen. Results from this research indicate that merely providing a guiding template to follow as with the previous single cycle and the flow chart is insufficient for novice reflectors. The following describes what was done successfully to facilitate the rare double loop learning reflections emanating from this study. Feedback from a participant during the first case study revealed that the notions of ‘paradigm shift’ and ‘new understanding’ were abstract and difficult to exploit without scaffolding.

Stage four of the model for developing reflective practice online.

In order to scaffold the double loop learning cycle (reflections at stage four as presented in figure seventeen), this researcher posted a potential model answer, expanding on subjects that had been discussed in trainees’ postings. Those trainees who sought to reflect at this level could then use this model as guidance on how to think in this way. This researcher decided to develop Helen’s contribution cited above on the topic of motivating students in class with vocabulary describing games. It was explained that the first stage of the double loop learning cycle ‘emerging knowing’ from this posting might not lie in the notion that fun guessing games lead to motivation but rather that giving students the responsibility of the selection and presentation of new vocabulary might be an effective practice in engaging learning (students were only selecting new vocabulary to be learned from their textbooks for this instance but that might expand to other sources in time). It was noted that the emerging realization from this might be that making students more responsible for the learning that takes place in the classroom can be advantageous. In the context of this research, it was demonstrated that this is a ‘paradigm shift’ as the educational system in Hong Kong has tended to encourage a transmission culture that is very teacher-centered and exam-oriented. Students are supplied with vocabulary lists to learn relatively passively, and these

are commonly tested through whole class dictations. Frequently, the teacher stands in front of a class with a microphone to do this. Thus, offering up the floor for students to lead in addition to passing responsibility to them to choose a portion of the language syllabus to be learnt is innovative; a characteristic of promoting learner autonomy. The ‘new understanding’, based on further reflection might be, as Jane (1977, cited by Holec 1981: 1) postulates, that with autonomy, rather than products, citizens become ‘producers of society’. Individuals are encouraged to positively shape their own lives and in doing so, be aware that they are contributing to a change in the lives of others also.

Example of trainee posting at stage four

At post testing two in figure seventeen, the content of trainee reflection can be said to have attained the insight and deep learning that occurs at the end of the double loop learning cycle process. Although results were rare at this level of analysis, there were rare examples constructed by trainees. These examples did not necessarily follow the exact order of the frameworks nor did they always answer the exact questions given. Feedback from trainees at the end of the first case study pointed out that continuously following exactly the same process of the flow chart would have been tedious. Thus, trainees preferred manipulating the scaffolded flowchart to best fit their situations and reflections.

The following trainee reflection was uploaded as two pieces, in two time frames. It has been divided here by this researcher for the purposes of qualitative analysis. The posting uses the double loop learning cycle. However, it does not completely match the flowchart set up to scaffold single loop learning; nor was it partially-constructed through Socratic dialogue. It begins with an observation based purely on prior studies not classroom experience and links that with reference to reading on the matter. Thus, rather than applying Daloglu’s (2002) first question, the student reflects on what he knew from his educational studies (deliberative reflection from Valli, 1993) and not necessarily what he learned from teaching or observing another’s classes during his teaching practicum.

Posting one.

The trainee (Edward) wrote:

“I had learnt from my studies that there is a strong linkage between the curriculum, syllabus, module, unit and each lesson. If stages are well-linked, students are led to a deeper and deeper understanding of the topic. According to Doff (2000: 98), “stages” refer to the “main focus of the activity”.

The trainee then moves on to describe what he learned from teaching practicum and links this again with deliberative reflection from Valli (1993).

“From teaching, I have learnt that even in one lesson, a set routine for my class could benefit my teaching and save time during the lesson. Setting classroom procedures can help “the smooth running of instructional activities” and reduce “the frequency which teachers need to give instructions for daily classroom events” (Hue and Li, 2008). Most of my lessons now start with a quiz on the topic from the previous session or a checking of homework. Students were able to use the time before I came to class to revise the topic”.

The ‘testing’ of the Argyris and Schön (1978) single loop learning cycle had thus already occurred when the first posting was uploaded; the trainee was conducting frequent quizzes and checking homework to recycle learning from the previous session as a means to making his lessons link well structurally. The reflection above demonstrates how the trainee was making meaning with the academic literature and applying what he had learned to his own classroom practice. Thus, the generic terms ‘Instructional activities’ and ‘classroom events’ are absorbed and adjusted to quizzes and checking homework.

The trainee then moves on from this ‘testing’ to reflection on the intervention, the final aspect of this first posting and the single loop learning cycle. This is in answer to Daloglu’s final point: ‘*what are my comments on and reactions to the experiences I’ve had?*’

“A good lesson should be timed appropriately as I understand students do not like to spend the whole recess with the teacher still teaching. With the help of good lesson planning and good use of classroom management skills, a lesson should be able to end on time. Students of mine gave me comments on my teaching at the end of my lessons this week. They told me that I have done a great job in finishing the lesson on time”.

It is only at this stage that the reader discovers what the experience was that sparked this trainee’s action research cycle: the trainee over-ran his lessons and needed to use up recess time to cover the planned course content. There was positive closure on this issue in the final sentences of the narrative.

Posting two.

In the next posting several days later, the trainee interpreted what occurred to try to develop new insights from the experience and to move within the realms of the double loop learning cycle. The ‘emergent knowing’ transferred the meaning of the reflections from an issue of teacher planning and avoiding the overrunning of lessons, to reducing teacher talking time:

“I think that through good planning, the time for teacher’s talk can be minimized and allow students to express their ideas more and to practice what they have learnt. This should encourage all the students to talk in English. And I think my students enjoyed this very much as they even asked me to allow them to stay after school to do interviews”.

Reflecting back on what occurred, the trainee was then able to interpret his students' complaints in a new light. What had perhaps stimulated that 'emerging understanding' was the juxtaposing notion that his students wanted to use up their free time to conduct speaking activities in class rather than finishing the lesson on time. The 'new paradigm' the trainee perceived then followed on from this and the trainee proposes a more learner-centered approach to instruction:

"This is a very student-centered approach to teaching. I think that too much time is used by the teacher in class. In a band 3 school, students use Cantonese not English to learn their other subjects. They are not forced to use English in the school as they are in a band 1 school. So, it is important to give students time to practice and learn to communicate in English together".

The 'new understanding' that the trainee constructs is further presented in the concluding comments that not only should English language students have much more time to use English in class but also that these periods of usage should entail student discussions on important issues to develop opinions and create good citizens:

"In traditional classrooms, teachers take up over 80% of the talking time (Walsh, 2006). They are concerned with exams and covering the content of the syllabus. But I believe our role is to develop students' communication skills through group discussions. These should also be about important issues to help students form opinions. This helps to form the child to become a good citizen. If teacher talking time is well-managed, this can be lowered for students' practice time".

The trainee can therefore be seen to have broken away from the existing assumptions, and structural norms, to challenge what he feels is a fundamental issue in his educational context. Instead of a transmission approach and solely filling students' heads with pre-fabricated, exam-oriented language syllabi, teachers should strive to facilitate a process-oriented approach and the

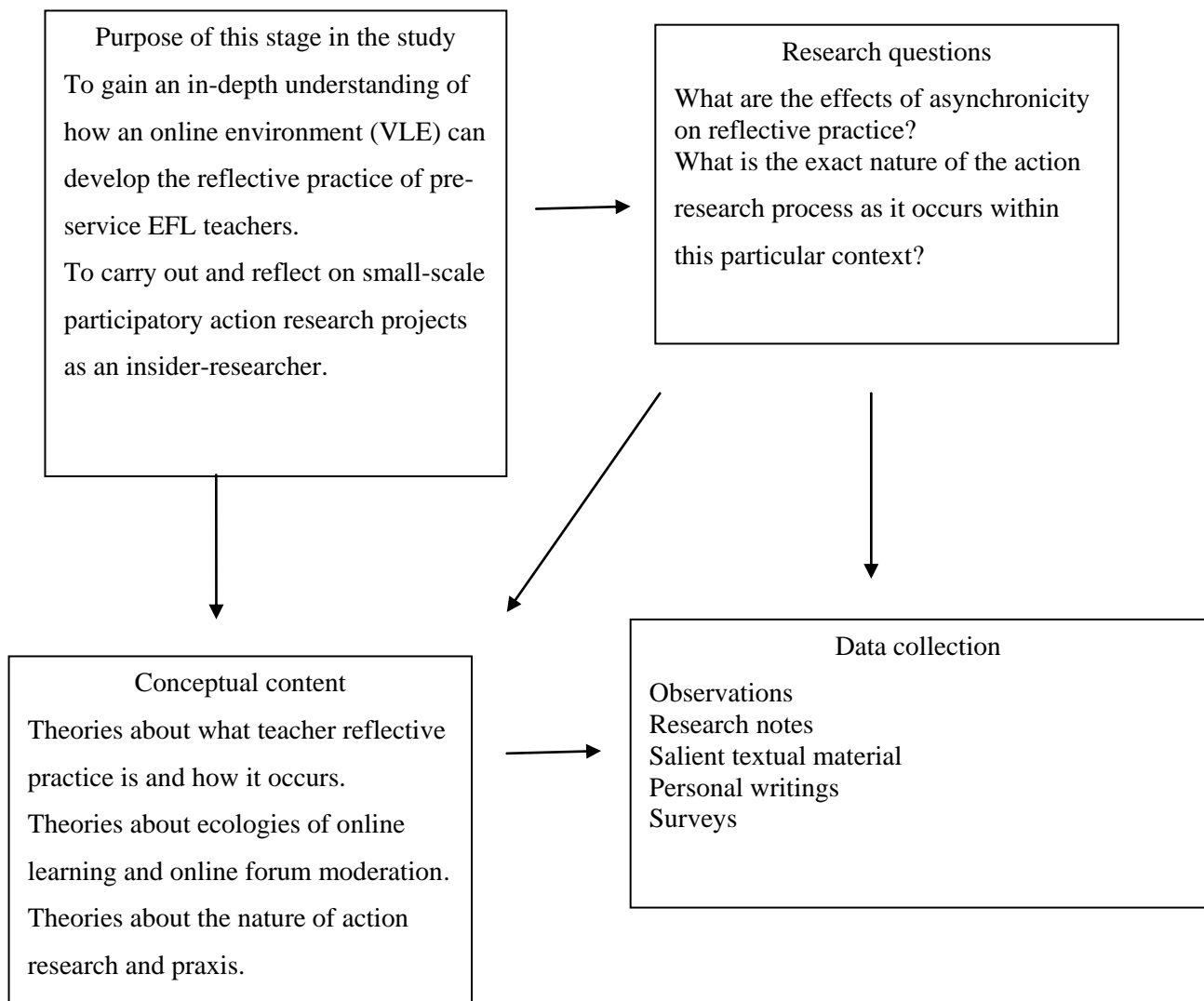
growth of the child as a critical, independent being. This is much more concerned with the philosophical stance of education as whole person development. This is also linked to society as each individual is a part and at once a reflection of a society. Thus, what improves the individual also improves society. In addition, the trainee touches on the notion that existence is relationship, stating that what is needed is the development of communication skills because each student learns who he is and what he wishes to become in association with others. With reference to Sparks-Langer *et al.*'s (1990) framework, level six 'explanation with principle/theory and consideration of contextual factors such as student characteristics, subject matter, or community factors' and level seven 'explanation with consideration of ethical, moral or political issues' are both present. Student characteristics are part of the reflection as the trainee argues that students appreciate communicating in class; ethical and political issues as the trainee advocates a role of forming good citizens who can express their opinions about important subjects. Thus, through the double loop learning cycle, the trainee has gone beyond theories of classroom techniques to how education can adopt more communitarian, even democratic values.

Section conclusion.

In this section, using qualitative data, how trainees applied the scaffolding supplied to guide them through the Argyris and Schön (1997) single and double loop learning cycle was explained. Thus the strategies developed to facilitate change in reflective capability through e-journaling and discussions were presented. To do this the following question was answered: ***how can teacher reflection be fostered and developed through online means?*** This improvement in trainees' reflective capabilities was first staged by applying the Daloglu (2002) questioning framework and incorporating into it deliberative reflection (Valli, 1993). These elements guided the trainee through the first or single learning loop cycle, which is an action research cycle with problem, intervention and reflection on intervention. Having analyzed the trainee's use of the single loop learning cycle, data from the trainee's posting following the second cycle was presented and analyzed. It was examined how these reflections can go beyond the status quo to enable trainees to develop new ways of perceiving reality and evaluating their roles both in the classroom and in society. It was also noted that these reflections were rare during this study.

4.8. Effects of asynchronicity on reflective practice.

Figure nineteen. Representation of one aspect of the study.



Section introduction.

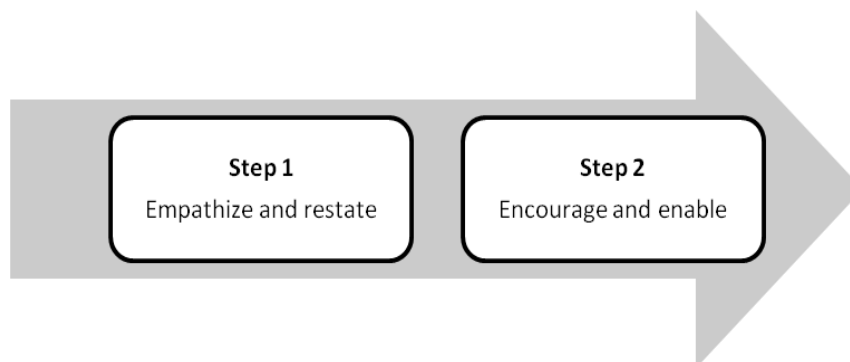
The central research purpose of this study is to examine the effectiveness of e-journaling through blogging and collaborative communication using online discussion forums in the development of the reflective practices of pre-service teachers conducting field experience block practice. Results suggest that although for some participants it was enough to offer guidance with the flowchart and double loop learning cycle, for others, reflection required further stimulation. In this section I will demonstrate how the asynchronous nature of the online environment was exploited to engage participants online using embedded textual dialogue in the form of Socratic

dialogue, or embedded language to prompt reflections and collaboration. This section therefore seeks to answer the question: *what are the effects of asynchronicity on reflective practice?* Results from this research suggest that asynchronous Socratic dialogue can be utilized to scaffold participant reflections over several postings and over a time frame of several days. Trainees could use the prompts as stimuli for action research or reflection and upload further postings on the issues in question after careful, critical analysis. Other participants could also follow dialogues and collaborate on issues that they found interesting and relevant to their own situations. Thus, asynchronous Socratic dialogue was also found to be an effective strategy in developing multi-voiced interactional patterns and collaborative learning.

The two-step procedure.

These research findings emulate Walker et al's (2004) conclusions, which are that 'challenge' (questions to encourage a student to justify an opinion or argument) and 'probe' (asking questions to elicit more information from a student) are the most effective moves. However, during this research, other moves such as 'empathize' and 'encourage' were also discovered and adopted. Further, with experience, a system or procedure of trainer strategies was observed to develop reflections effectively. Along with 'probe' and 'challenge', these steps were regularly used and in the order shown below in figure twenty. These are 'empathize and restate'; and 'encourage and enable'. This is presented below as two key steps developed by this researcher using Socratic dialogue online. This model has been entitled 'Socratic dialogue moves: a two-step procedure'. There is then an extract of text to demonstrate usage followed by a qualitative analysis of the reasons why these moves were found to be effective.

Figure twenty. Socratic dialogue moves: a two-step procedure.



In the example below, the participant communicates a problem that she has experienced with lesson planning. This is therefore at post-stage one of an action research process. This researcher follows the two-step procedure above as online asynchronous Socratic dialogue over two days to develop reflection:

Day 1: *"I planned to teach grammar and letter writing in the first week. But after the first lesson in which I only finished 1/5 of my lesson plan, I realized that students couldn't learn too much in one lesson". (May)*

Day 2: *"I always did that too when I started out teaching (empathize) – in fact, I still over-plan (restate)!!!" It's good that you stopped to allow students to learn something rather than pushing on ahead (encourage): that is something that a lot of inexperienced teachers do not do. Can you keep what you've planned as a unit plan and turn it into several lessons"? (Enable)*
(Teacher educator)

Day 2: *"Yes, I suppose..."*

Empathy is offered by the teacher educator through the acknowledgement that he also committed the same error as the trainee. This demonstrated to the trainee a trainer awareness of the extent to which this is a difficult issue to solve. In addition, by restating, through synonymy, the trainee's issue being discussed, the trainer conveyed a good understanding of it. This aided the single loop learning cycle process at the 'generalization' stage and added Valli's (1993) 'deliberative reflection' construct. This step it was also hoped could help to develop trust between trainer and trainee, through dialogue, and to build trainee confidence, which might lead to further discussion about the issues in question. This follows findings in the literature on trust in teaching. Curzon-Hobson (2002) state that without trust, students are unlikely to take the risks needed to pursue areas of learning that they are unfamiliar with. Through the 'empathy' and 'restate' moves, the trainee was encouraged to generalize about the issue and to explore the matter more fully. The next stage, 'testing' (Argyris and Schön, 1978) incorporates Daloglu's (2002) third point: *what would I like to implement in my own teaching?* This was facilitated by using the 'enable' move

through a question which strove to facilitate an appropriate intervention. This researcher simultaneously wanted to change a negative issue into a positive one by encouraging the trainee to consider the beneficial implications of the over-planning: that is the fact that she might use her over-planning to better-manage the next few lessons with these students. This is more than merely prompting because whereas prompting might develop negative remarks, the enabling move focuses on positive connotations of issues arising and leads on to action to offer a response to Daloglu's (2002) third point '*what would I like to implement in my own teaching*'. The answer to this was to plan effectively for these learners on this course:

Day 2: "*Yes, I suppose... I could try to divide it up into different lessons and use it as a scheme of work*". (May)

The next stage (post testing 1) to complete the single loop learning cycle is the question: *what are my comments on and reactions to the experiences I have had?* Three days later, the student reported that she had managed to select an appropriate amount of structure in her lessons using the planning that she had already done as a broader schema or unit plan. In fact, she remarked that this method of initial planning for a week before had enhanced her course management skills, and that she would continue to carry out this practice. The next stage in the single loop learning process would be for the student to reflect on the outcome of this puzzle and to decide what she had learned from it. Unfortunately, these reflections did not develop into the double loop learning realm.

Moves developing collaboration.

At times, it was found that individuals proved reluctant to engage in online groups because of a lack of experience in online communications or as Brown and Duguid (2002: 138) suggest, a lack of 'knowing how to be in practice', rather than 'knowing about practice'. As a result, in order to engage participants in online groups, there was a need for individuals to be guided to collaborate with their peers. Therefore, in addition to the two-step procedure above, other moves to encourage joint enterprise, or the construction of collective meanings, through multiple-participant interaction were used asynchronously online. These moves may also be seen as performative language or speech acts (see in particular, Austin, 1962). Their illocutionary force

is to encourage or invite response in order to construct collaboration. These are *'eliciting other trainees' experiences/opinions'* and *'asking for consensus on topics'*. These acts do not appear as part of the Walker et al (2004) typology. They were utilized on occasions when there was a lack of trainee presence online or a need to find closure to a discussion. They tended to be successful in eliciting responses from participants when communications had reached a lull or quiet time. The following examples were used as the above-analyzed dialogue on lesson planning progressed:

"Have the others found the same? Is there any advice any of you can offer (Eliciting other trainees' facts/ opinions)"? 'Do you all agree that this is quite a difficult thing to get right when you start out teaching (Asking for consensus on topics)'"? (Teacher educator)

Yes, I have the same problem. I make too many materials and then have to throw away worksheets because they won't get used".
(Tiny)

In general terms, these moves were required at different stages in a forum. The first (*'eliciting other trainees' experiences/opinions'*) was used to invite participation; the second (*'asking for consensus on topics'*), to end a discussion. It was found that these were effective as each time they were used over the three case studies, they received responses.

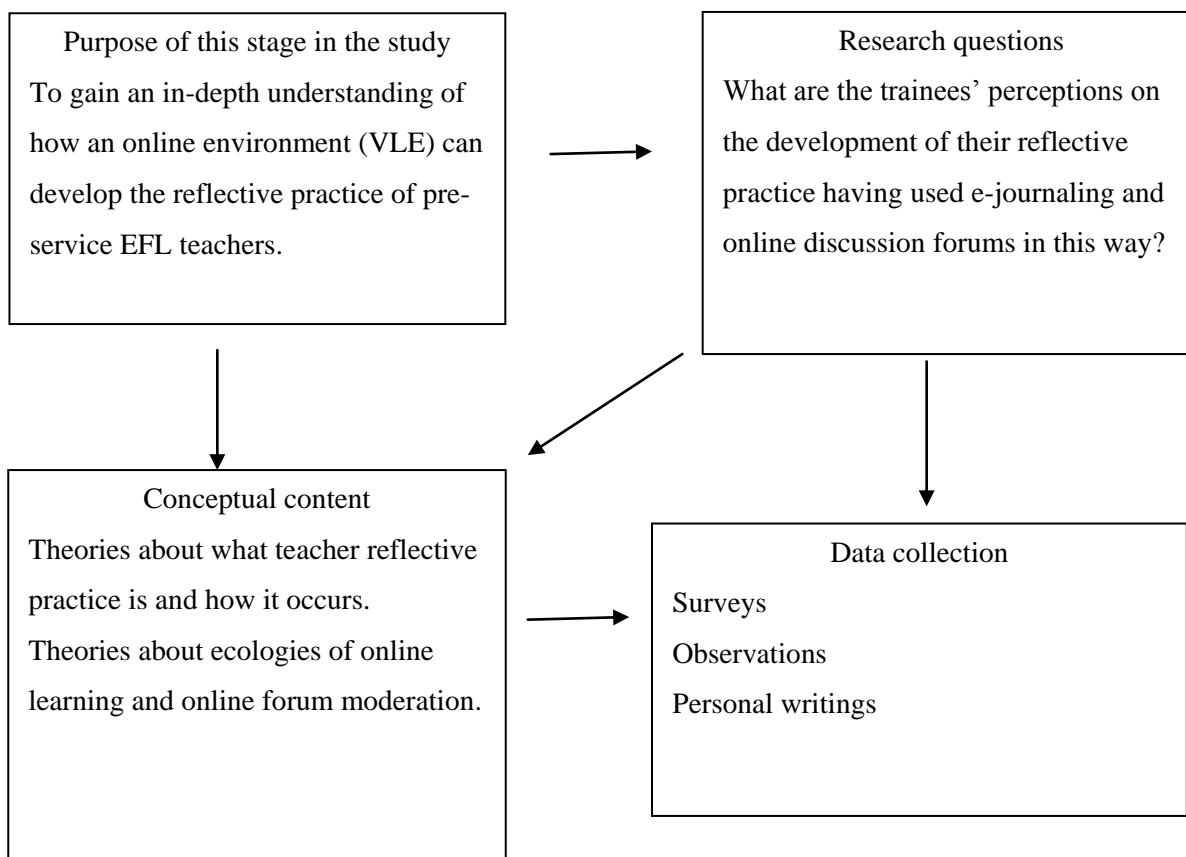
Section conclusion.

In this section, selected benefits of the asynchronous nature of the communications of the online environment have been presented, in particular, how embedded textual dialogue, also known as Socratic dialogue, can be explored to develop individual trainee reflection and collaborative interaction online. Apart from the 'prompt' and 'challenge' moves outlined by Walker et al (2004), this researcher discovered a process which consisted of two steps: *'empathize and restate'* and then *'encourage and enable'* to be particularly effective in managing dialogue with individuals. In addition, other moves: *'eliciting other trainees' experiences/opinions'*; and

‘asking for consensus on topics’ were found to be effective in developing joint enterprise and collective meanings.

4.9. Trainees’ perceptions on the development of their reflective practice.

Figure twenty-one. Representation of one aspect of the study.



Section introduction.

The central research purpose of this study is to examine the effectiveness of e-journaling through blogging and collaborative communication using online discussion forums in the development of the reflective practices of pre-service teachers conducting field experience block practice. In this section, how effective the online environment was perceived to be by the twenty four trainees involved in all three case studies is explored. To do this, the following question was researched

through a questionnaire: *what are the effects of using online blogging and discussion forums on the trainees' perceptions of the development of reflective practice?*

Results from the end of case study questionnaires suggest that trainees were very positive about the structures developed and that overall the objectives were fulfilled. Five questions were designed to find out the trainees' perceptions of using the online blogging and discussion forums to develop their reflective practice. Each individual's answers to these questions were written privately and asynchronously and sent to this researcher by email. Despite this privacy, many of the respondents' answers were similar in content and therefore only some of these have been selected for report and subsequent analysis.

The questions asked were the following:

Did you mind sharing your experiences publicly online?

Did you find the structure to develop reflective practice using Daloglu, Valli and Argyris and Schön useful?

Did you find asynchronous communication beneficial for reflection?

Overall, did you find the site helped to develop your reflective practice?

Anything else you would like to add?

Responses to the use of the quasi-public forums and the application of the models developed were greatly positive with almost every trainee responding positively to all of the questions given. This positivity was judged by analyzing comments linguistically for connotation: the use of phrases such as 'I loved it' or gradable adjectives such as 'very valuable' were overwhelmingly present from all trainee responses to the five questions and these meant that the discussion forums had been effective. The use of negative phrases such as 'I did not want to get bored' were much less significant (only three out of the five questions received negative responses from the trainees) and these were interpreted as meaning that the site had not been effective. Selected positive and negative responses to the questions at the end of each case study are provided below.

Trainee responses.

Did you mind sharing your experiences publicly online?

It has been reported that short-term online communities of practice lack the longevity needed to develop shared repertoire (Fowler and Mayes, 1999). If group members do not develop a certain level of trust between each other, at least enough to share their experiences openly, this can contribute to difficulties in in-group functioning (Murphy *et al.*, 2000; Wegerif, 1998). Individuals could become reluctant to engage in online group-work (Brown, 2001). Overall, responses from this research evidenced that joint enterprise (Wenger, 1998) had been achieved and that openly sharing reflections was not an issue. This was demonstrated in different ways. The most common feedback on reification of joint enterprise was the fact that trainees learned a great deal about practical classroom strategies. One trainee commented that he had learned vicariously (see Bandura, 1986); or via ‘legitimate peripheral participation’ (see Lave and Wenger, 1991) about specific classroom management skills. Another reported on a particular game that she had learned from a peer’s online posting and subsequently applied in her classroom:

“My students just loved it! So, the site is really good for us so that we can learn from each other”.

Vicarious learning was also evidenced from sharing in several other responses. One trainee reported that due to exposure from reading the forum postings, he now had a much better awareness as to the types of everyday issues that arise and how teachers deal with them. Through vicarious learning, another participant reported that she was aided in assessing her own psychological state during practicum:

“I found reading other people comments very valuable as I wanted to find out what was going on in other people's minds, and how they would react to different situations. It helped me to know that I was not the only one with problems at school”.

This feedback acknowledges the presence in the online learning environment of what Brown and Duguid (2002) propose as one of the essential characteristics of situated learning: ‘knowing how to be in practice’.

Engagement early-on is essential to online learning and teaching (Salmon 2004). This engagement may begin with a ‘trigger question’ (see Hughes *et al.*, 2004), which is then explored using a constructivist approach to enquiry-based learning (see Cochran-Smith and Lytle, 1996; Jonassen, 1991). Not one trainee from the twenty four respondents reported a lack of confidence or an unwillingness to share reflections online. Several comments were made about the ‘developing online awareness and community model’, in particular, that it had helped to break the ice at the beginning of the case studies and encouraged or ‘triggered’ open sharing:

“I found the getting to know you activities useful because I didn’t know my peers very well. After that I surely didn’t mind sharing my experiences publicly online”.

Similarly, another participant reported that she felt more able to be open with her peers after these activities. There were therefore a number of sources offering positive feedback about joint enterprise and vicarious learning.

Did you find the structure to develop reflective practice using Daloglu (2002), Valli (1993) and Argyris and Schön (1978) useful?

Larrivee (2006) posits that pre-service teachers become empowered through reflection if they are engaged in a systematic, explicitly guided process of reflection. Moon (1999) also posits that these tools are needed if trainees are to develop deep understandings of their experiences. The structure implemented for this research was reported to be useful as it helped to build trainees’ confidence and ability in reflective practice. One trainee stated:

“The more I used the structure, my confidence gradually grew and I learnt that I had the ability to think in new and different ways”.

Another writes:

“The flow diagram really helped me to do my own classroom research projects. I learned a lot. I sat down right at the end of class and wrote down my reactions to what I had tried and then re-read them at home later”.

Different aspects of this structure were praised by different individuals. The Daloglu (2002) framework was found to help a trainee to link her studies with the events she observed in the classroom:

“Sometimes I observed events which I had only heard or read about before-hand. So to think and write about what we already knew but had never seen in real life was useful”.

Another noted that using the Valli (1993) notion of ‘deliberative reflection’ to find expert opinion on questions that arose from the classroom was considerably beneficial to learning and something that she would perhaps not have done if it was not a recommendation of the system of reflection.

However, despite these positive findings, there were instances of negative feedback. One participant found that using the same framework repeatedly was arduous, restricting individual creativity:

“I did not want to get bored repeating the same questions all the time so there should be some freedom to change too”.

Another found that it was difficult to find the time to follow the entire procedure:

“Workload was a problem because there was simply too much to handle in the first teaching practice”.

This workload issue and perceptions about little time for engagement have been reported to be a problem in other research (Conole *et al.*, 2002), especially if the discussion boards are not

tightly-related to any form of formal assessment (Ragoonaden and Bordeleau 2000) as was the case for this research.

There were two instances of feedback on the difficulty of applying the conceptual thinking of the double loop learning cycle. One of these interpreted the process as developing his teaching philosophy:

“But the double loop was difficult because we needed to think about our teaching philosophy”.

Another reported that it was difficult to incorporate reflection on how lessons might benefit society. These reactions to the double loop learning cycle are also found in Moon’s (1999: 123) work, who states that it is the ‘most advanced stage named on the map of learning’. Very little feedback on the double loop learning process was collected due to the fact that very few trainees followed the process to its end.

Did you find asynchronous communication beneficial for reflection?

There has been much research on the convenience and flexibility that online learning offers (Anderson and Garrison, 1998; Andrusyszyn *et al.*, 1999; Atack, 2003; Garrison, 2009; Geibert, 2000; Martyr, 1998). Feedback on the asynchronous nature of the online environment and how this benefited reflection was entirely positive. Similarly to Garrison’s (2009) findings, having time to consider issues carefully and concentrate fully when trying to convey meanings to others was conveyed to be one of the essential benefits to the online environment as higher-order communicative content is created. Another benefit raised by trainees was the advantage of transactional distance (Moore, 1989) between student and forum content (Anderson and Garrison, 1998), in particular, being able to log on at any time to read and post reflections. This convenience was highlighted several times. One unique instance of feedback on asynchronicity was the opportunities that it gives the learner compared to classroom learning. The trainee states:

“All students can exchange ideas via the internet including the teacher. This cannot be done if the students are having their discussions during classes. It is because they are divided

into groups and they can only listen to what their group mates say but not the other students in the class. However, with the technology of asynchronous chat, they can have opinions from members of the other groups too”.

This is in contrast to other research findings (see Ryan *et al.*, 1999) that the immediacy of classroom delivery is missed in web-based delivery. Therefore, asynchronicity offers the freedom of time and access to find out what all participants are thinking about certain issues rather than merely the handful of group members one commonly interacts with in face-to-face situations in the language classroom.

Overall, did you find the site helped to develop your reflective practice?

Every participant responded positively to this question. Comments about being able to learn from others, and learning from writing down one's own reflections for others to read were given most commonly as the major benefits. This is similar to positive findings on 'reflective conversation' (Crow and Smith, 2005; Goodfellow, 2000) or the process of trainees verbalizing experiences amongst themselves (Jay and Johnson, 2002; Osterman and Kottkamp, 2004; Richert, 1992).

In line with recent research findings (Loureiro-Koechlin, 2010), a number of participants reported on the benefit of the freedom of access (Anderson and Garrison, 1998) and the forums as deposits for developing reflection. One trainee reported:

“The discussion board kept every sentence we wrote, and this was a very good record of our comments. I enjoyed reading these again and again to help me write about my experiences and observe how my feelings changed during the teaching practice”.

This was found to be particularly useful as, at the end of the practicum, trainees were required to write a portfolio reflection, which would be assessed. Having this resource to use for the personal exploration of their reflections over the entire practicum was widely acknowledged as

beneficial. Finally, one student reported that she was now much better equipped for the future practice of reflective teaching:

“Someone wrote the saying: ‘If you give a man a fish, you feed him for a day. If you teach a man to fish, you feed him for a life time.’ I deeply understand the rationale for this now. I start to learn how to perform self-learning and problem-solving in various circumstances on my own. Without the e-learn, I would not have learnt this”.

In the above, the trainee uses a metaphor to explain how applying the reflective model constructed is now enabling her to perform her own reflective learning independently. This type of feedback in meta-cognitive theory, in particular, demonstrates how successful learners become conscious of their own learning (Marton and Saljo 1984), and make explicit the knowledge that there has been a transfer of learning, and that a level of independent manipulation of this new learning, has been attained.

Anything else you would like to add?

For the final open-ended question, several trainees reiterated the problem of finding time to engage wholeheartedly in the case studies. One noted that she could not spare the time to keep up with the ongoing dialogues online and often lost track of these. This researcher’s attempts to deal with this issue are published in another paper (see Brooke, 2012c). Another remarked that she regretted not having the time to post her experiences online for open discussion stating that she might have missed out on potential learning experiences. Finally, one trainee reported that the freedom of access and the ease with which trainees could explore the internet for a variety of resources (Anderson, 2008, has recently described this as the ‘freedom of media’ that online learners enjoy) was a particularly useful characteristic of the online environment:

“The tutor helped by posting hyperlinks to references and suggested teaching materials for the students”.

This was seen as helpful in developing reflections in particular participants appreciated the practice of offering opportunity for deliberative reflection in postings as hyperlinks to appropriate learning material. These could be offered for trainees to explore with regard to the experiences that they were encountering during their practicum.

Section conclusion.

In this section, the feedback from trainees concerning the effectiveness of the online environment for developing reflective practice has been explored. This feedback reveals that the scaffolding in place was found to be largely beneficial in developing reflective practice at individual and group levels. Individuals found that the focus on linking studies with experiences using the Daloglu (2002) and Valli (1993) structure was something that benefited their reflections as it offered advice from experts on dealing with problems that emerged: through Valli's (1993) notion of deliberative reflection and using the Daloglu (2002) questioning framework, it required trainees to think about what they knew but had never observed bringing to the surface prior knowledge and connecting this with present experiences. In addition, the flow chart diagram was noted as an effective scaffolding guide through the single loop learning cycle. Indeed, using a fishing metaphor, one trainee stated that she felt more able to reflect deeply autonomously.

Open sharing online was not problematic and construction of knowledge was perceived to be significant with trainees stating that they learned vicariously from discussions. One trainee explicitly noted that the 'getting to know you' e-activities had successfully developed familiarity leading to a reduction of affective factors such as timidity or embarrassment. In addition, the freedoms of time and access that asynchronicity offers were highlighted as particular benefit of the online environment: with the freedom of time, trainees were able to reflect carefully when reading or writing postings; with the freedom of access, trainees could navigate through the forums and find postings from earlier stages during the practicum to reflect on and perhaps compare with newer ones; they could also follow embedded hyperlinks offered by the trainer to useful online resources, which was noted as an advantage to the system. Finally, some negativity towards the research was outlined: one trainee noted that the repetitive use of the developing reflective practice model was arduous, and others noted the lack of time available to keep up with the blogs and discussions.

4.10. Nature of the action research process.

The post-research narrative.

By the time the third case study had been completed, an awareness of an intimate understanding of the online environment and how it could lead to the development of students' reflective teaching capability had evolved. This had become my own living theory and it was an intense knowing, far more so than it might have been through reading another's accounts of research in the field. This was due to the fact that this knowledge had been constructed diachronically through experiential learning by applying both deliberative and dialectical reflection. Thus, the resulting models in the findings were unique. However, there was also an awareness that the knowledge gained through this process, did not necessarily mean that this researcher had become an expert in this academic field, rather an expert in his own context.

The perceptions towards the study at the end of the last case study were different to those during the pre- and while-research phases. During these earlier stages, researcher preoccupations would very often be concerned with the minor action research cycles because these were essential for the running of the sites. By the end of the third case study, it was possible to withdraw from these minor cycles and analyze the whole from a much broader perspective. It should be stressed that one of the key learning points to this research was the knowledge that structure at all levels was essential.

Firstly, awareness had grown that during initial stages, structures were required to develop trainee use of the online environment. These structures were needed to present the tenor of the online language to be used; to construct the level of online competence required to skim through discussion forums and add threads to postings without difficulty; and to help build the trust participants needed to openly share their experiences with this researcher and with peers who they were not familiar with. These notions were quickly learned.

Secondly, awareness had evolved that structures were also required to systematically scaffold the learning loops from Argyris and Schön (1978). The single loop was scaffolded to an extent whereby trainees could use it competently and comfortably. This can be seen in the number of postings concerned with 'self-awareness and self-evaluation' (twenty-seven percent). This

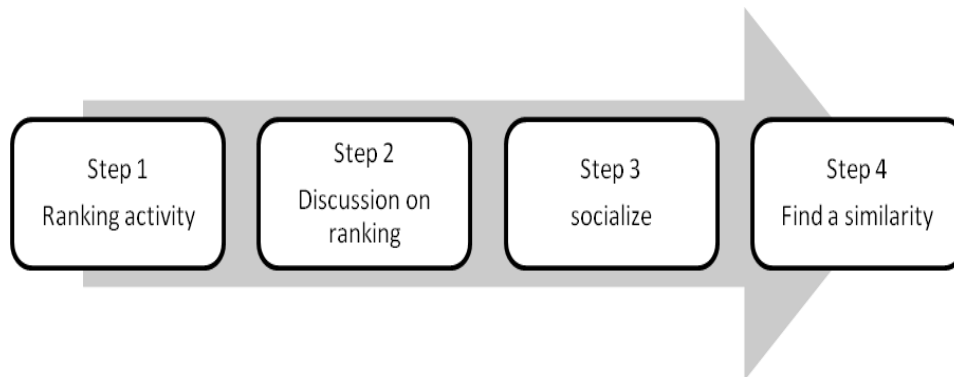
feedback was also presented in the final section of the results as part of the questionnaire feedback. With regard to the single loop learning cycle, trainees were regularly posting what they had learned from small-scale interventions that they were carrying out in the classroom. These were also the subject of much collaboration and group analysis. There was little evidence that trainees were uncomfortable with these discussions. Therefore, the flow chart developed had brought about useful learning, and implementing asynchronous Socratic dialogue techniques further developed the scaffolding. These techniques guided learners to explore their thinking further so as to learn as much as they could from these experiences.

Finally, awareness developed that, in reality, there was not enough scaffolding for trainees to follow the entire double loop process envisaged. It would require more time than the time frames of eight weeks of these case studies. From the questionnaire feedback, it was evident that this is because this process is a very complex, abstract one for novice reflectors who are working in a different language to their mother tongue. Asking these trainees to shift from thinking about how to understand and improve the teaching environment to fundamentally challenging their teaching environment was unrealistic. Indeed, as the researcher, there were times when it was felt that an attempt to coerce the trainees into doing something that they were not motivated to do was taking place. For their first intensive block practice, it was enough to ask them to adapt to these new environments. This is revealed in the fact that very few trainees actually implemented the double loop learning cycle.

4.11. Chapter conclusion.

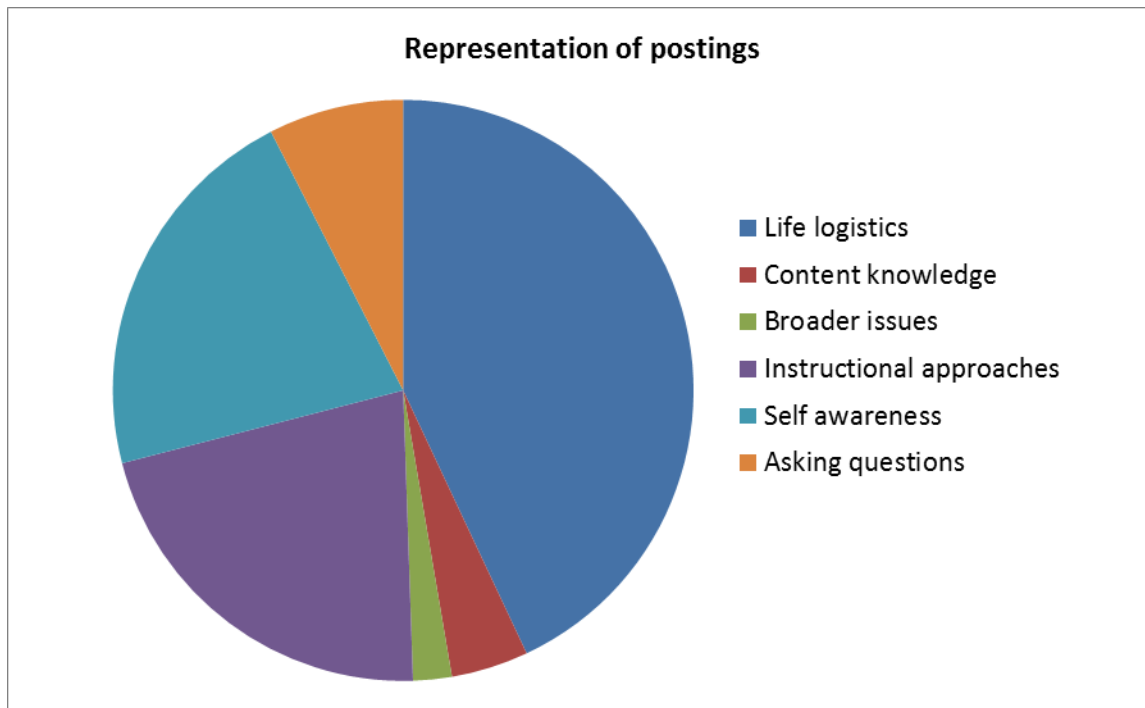
In this chapter, the action research findings have been presented and analyzed. At the beginning and end of this chapter were narrative descriptions offered to provide insight into the action research process conducted during this study. The first narrative revealed the state of awareness of this researcher with regard to both reflective practice development and online moderation prior to the commencement of the case studies. The second narrative presented the level of awareness of this researcher after the three case studies had been facilitated. This included a brief summary of what this researcher had perceived as successful. In section 4.4, the data presented represents aspects of the initial action research process. For this, there was a presentation of the ‘developing online awareness and community model’, a pre-requisite to effective blogging in this researcher’s context (see below):

Figure twenty-two. ‘Developing online awareness and community model’.



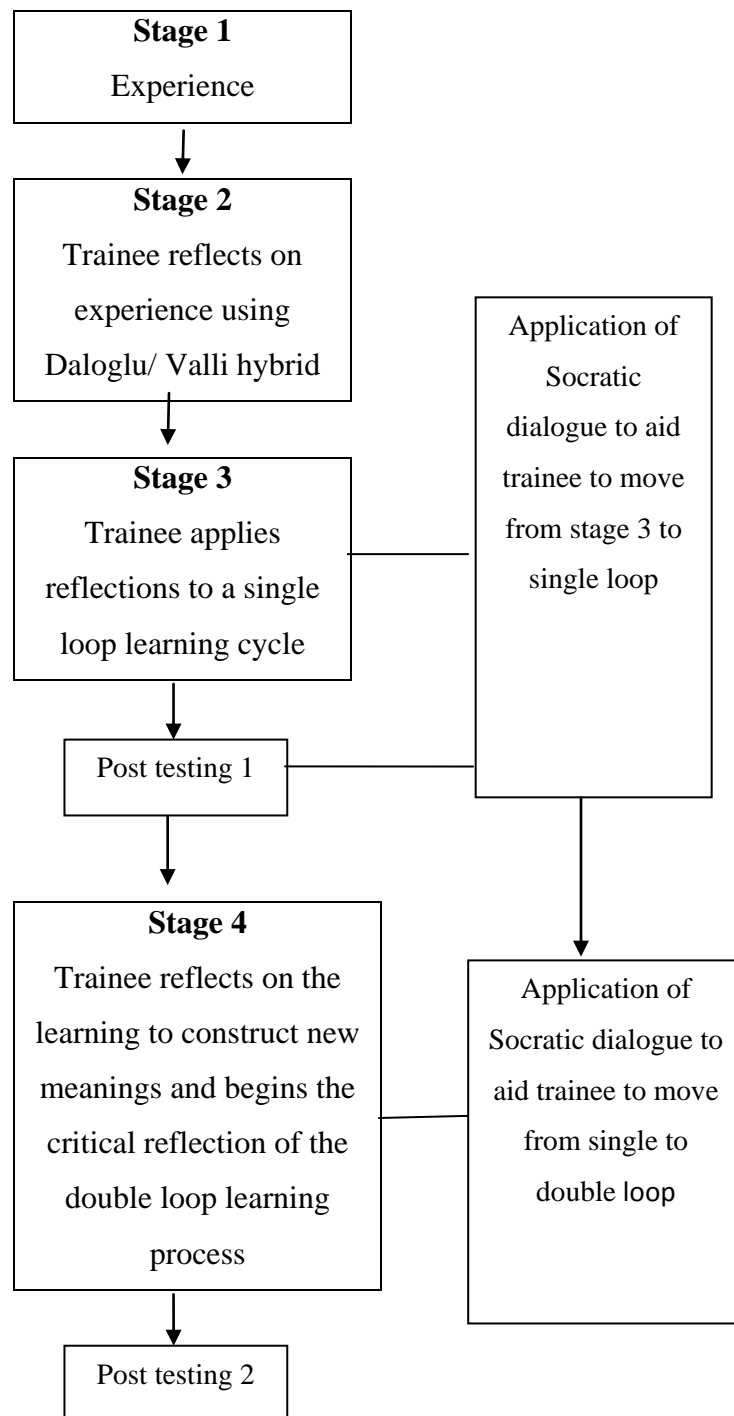
In addition, in section 4.5, a quantitative analysis was given of the themes emerging from trainee reflective practice over the three case studies. This was given in order to describe the nature of reflective practice in this researcher’s context. These findings are presented in pie chart form below:

Figure twenty-three. Distribution of posting topics.



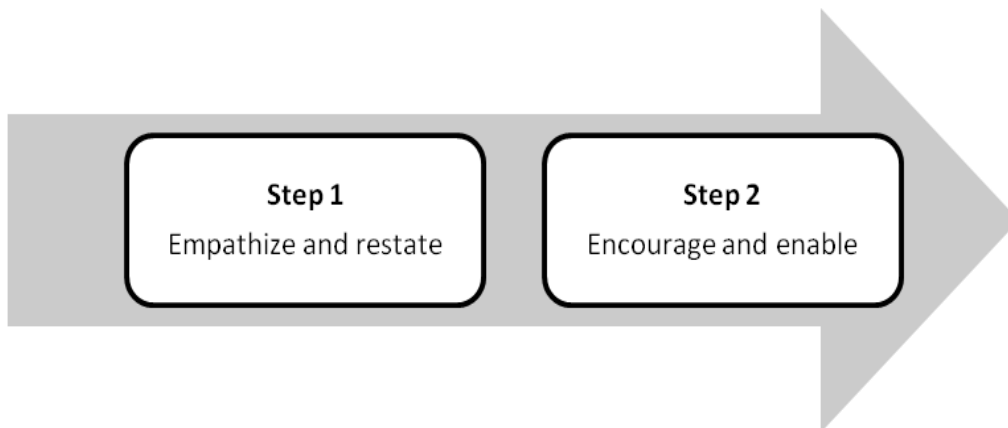
Section 4.6 presented the construction of the ‘model for developing reflective practice online’. This was constructed to scaffold the Argyris and Schön (1978) double loop learning process. This diagram is presented here again to sum up the chapter’s findings:

Figure twenty-four. 'Model for developing reflective practice online.'



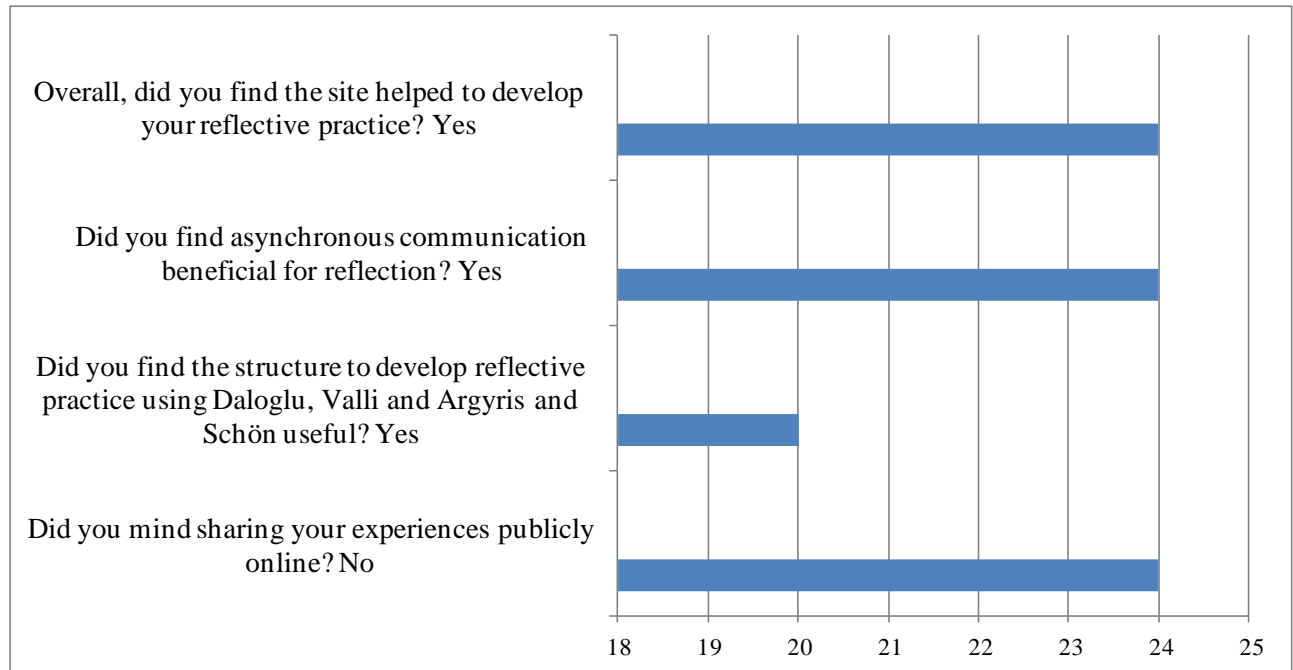
Section 4.7 revealed the Socratic dialogue moderator strategies used online to develop trainees' reflections and to elicit responses from other participants. One particularly effective two-step procedure was presented.

Figure twenty-five. 'Socratic dialogue: two-step procedure.'



Finally, section 4.8 revealed how the trainees perceived the value of the online environment in developing reflective practice. Positive responses from the three case studies to the yes/ no questions are summarized below:

Figure twenty-six. Twenty-four participant responses to end-of-case study questions.

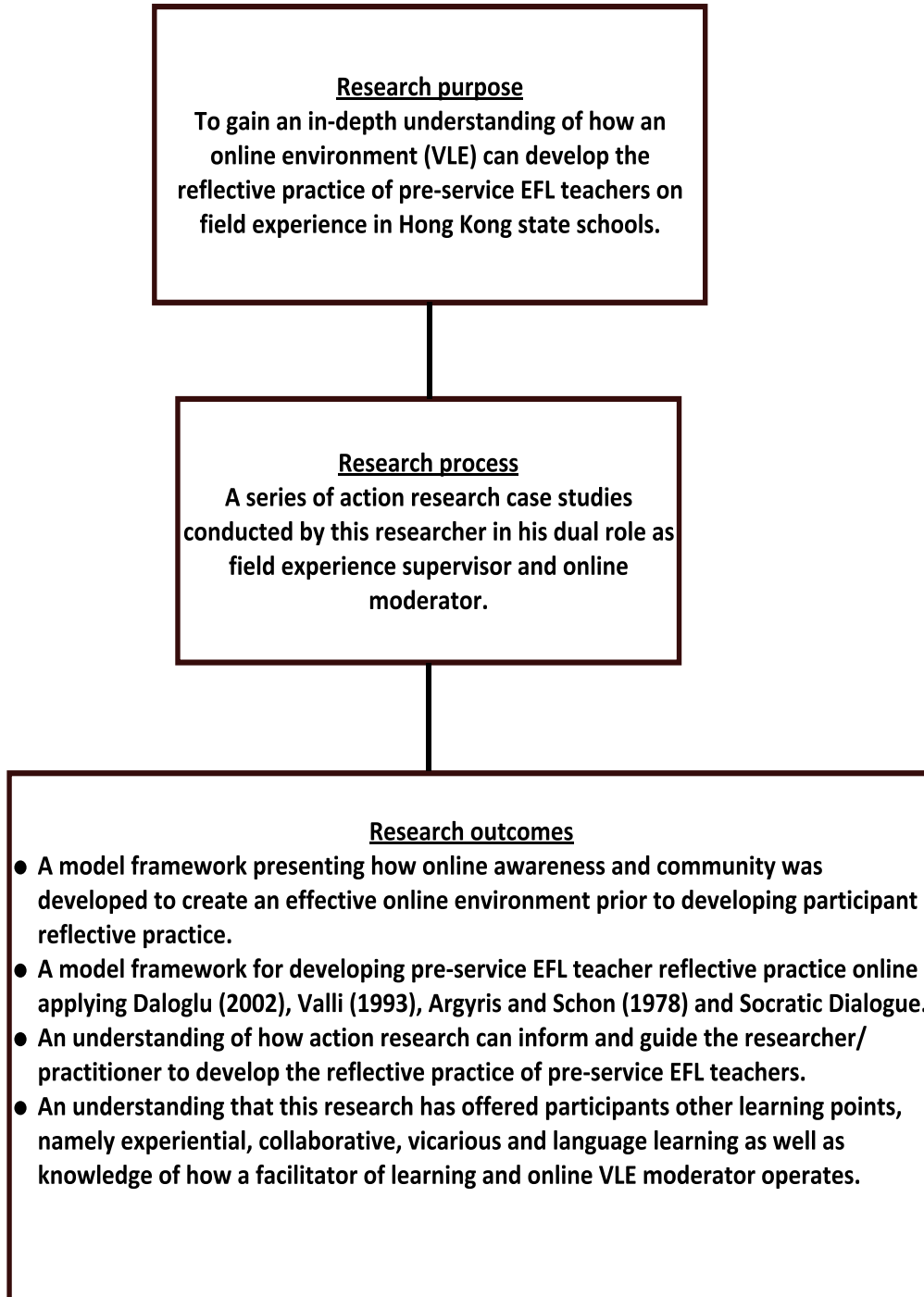


In the next chapter, discussions occur on the effectiveness of the action research process adopted; on the major threads emerging from the findings; and the impact of the research on pre-service teacher trainee learning.

Chapter Five

Discussion

Figure twenty-seven. Core representation of the study.



5.1. Chapter introduction.

This chapter begins by a literature review on recent research in the field of reflection and online journaling. It then moves on to explore observed research topics of interest emerging from this study, and to answer the question *what is the exact nature of the action research process as it occurs within this particular context?* After that, the chapter discusses the major threads emerging from the findings based on the questions posed to meet the principle objectives: *how can an online community of practice be developed? What are the themes that emerge during reflection on practicum matters? How can teacher reflection be fostered and developed through online means? What are the effects of asynchronicity on reflective practice? What are the trainees' perceptions on the development of their reflective practice having used e-journaling and online discussion forums in this way?* There then follows another section based on this researcher's observations concerning the impact of the research on participant teacher-trainee learning. The various types of learning in which participants were engaged include experiential; collaborative; vicarious; and language learning; as well as learning about how a facilitator of learning and an online VLE facilitator operate. These threads are presented below in table form:

Table five: Learning topics

Learning topics emerging from the study's purpose, objectives and research questions.	Learning topics emerging from researcher observations during the three case studies.
Nature of action research in this context.	Experiential learning.
Strategies to develop an online community of practice.	Collaborative learning.
Reflective practice themes emerging during practicum.	Vicarious learning.
Strategies to develop reflective practice.	English language learning.
Effects of asynchronicity on reflective practice.	Learning about how a facilitator of learning operates.
Trainees' perceptions of their reflective practice development.	Learning about how a VLE facilitator operates.

One overall purpose framed this investigation:

To gain an in-depth understanding of how an online environment (VLE) can develop the reflective practice of pre-service EFL teachers.

Proceeding from the study's purpose, the research had the following principal objectives:

1. To examine how an online community of practice can be set up and developed;
2. To examine the nature of reflective practice in a diverse teaching community;
3. To examine the efficacy of an online environment's e-journaling and discussion forums for the development of reflective practice;
4. To examine how e-journaling and discussion lead to change in reflective capability.

In order to meet these objectives, the following questions were asked during the study:

How can an online community of practice be developed?

What are the themes that emerge during reflection on practicum matters?

How can teacher reflection be fostered and developed through online means?

What are the effects of asynchronicity on reflective practice?

What are the trainees' perceptions on the development of their reflective practice having used e-journaling and online discussion forums in this way?

In addition to the overall purpose, objectives and questions, there was a parallel and continuous reflective commentary analyzing the process of the action research of the study. This reflection examined how the action research paradigm could inform and guide this practitioner to achieve the purpose. The ongoing question with regards to the research paradigm conducted throughout the study was: **what is the exact nature of the action research process as it occurs within this particular context?**

5.2. Recent research on reflection and journaling.

In the last twenty years, reflective teaching has been at the heart of initial teacher education programs. It is a performance competency for teachers and an accreditation standard for teacher education programs (National Council for Accreditation of Teacher Education, 2008). Despite its recent importance, the notion of reflective teaching has been an important focus since Dewey (1933) and later in particular in Argyris and Schön (1978). The crux of the matter is that all human action is never accidental or atheoretical. Argyris and Schön (1978) postulate that human agents seek an understanding of the contexts in which they function and develop desired outcomes from these. This creates an action theory: a theory in action, also known as ‘reflection in action’, or thinking about what one is doing when doing it; and ‘reflection on action’, a ‘cognitive post-mortem’ (Greenwood, 1993), or looking back at one’s actions to understand the response to the events that emerged and therefore one’s tacit knowledge. Valli (1993) adds to these concepts a focus on developing allegiance to other theories known as ‘espoused theories’ or those consulted from other relevant sources in particular through reading of related literature in the field. This is more than reflection in hindsight; it is also research to find other sources to develop one’s knowledge and personal theory. If a desired outcome is not achieved, Argyris and Schön (1978) put forward two methods to approach the problem. The first response type is the single loop learning cycle, which is to seek a means to achieve that end. The second is the double loop learning cycle, which is not only to seek ways of achieving that end but also to examine the ends themselves and to reflect on the values and norms and the social structures that rendered them. The goal of reflection is ultimately to understand the world that one creates and to become more capable in adapting or changing it to one’s evolving values and theories.

Online blogging tools and discussion forums, moderated by a teacher educator, are common today as part of a Virtual Learning Environment such as Blackboard or Moodle, or as part of networking or blogging program such as Facebook, blogger.com or wikispaces.com. Recent findings suggest that e-journaling may be a means to facilitate trainee teacher reflective practice (see Crawley, 2011; Davis and Roblyer, 2005; Gleaves and Walker-Gleaves, 2010; Lock, 2006; Murillo, 2008; Salazar, Zenaida Aguirre-Munoz, Fox and Nuanez-Lucas, 2010; Simonsen, Luebeck and Bice, 2007, 2009; Simpson, 2006; Yang, 2009). This is primarily because of its collaborative nature (Galanouli and Collins, 2008; Murillo, 2008; Simonsen, Luebeck and Bice,

2007, 2009; Yang, 2009) but also because of the asynchronous nature of the communications conducted online (Jaffe, Moir, Swanson and Wheeler, 2006). These resources are seen to facilitate interactive learning (Arnold and Ducate, 2006; Richardson, 2005), and in constructivist terms this leads to more aware and meaningful communications than any individual thinking might aspire. Murillo (2008), Simonsen, Luebeck and Bice (2007, 2009) and Yang (2009) have all reported a high volume of highly-focused, student teacher participant interaction online facilitating the development of participants' levels of reflection and leading them to important insights in their teaching.

It is hoped that this study might add to the growing field of research examining how technology can facilitate reflective practice. Salazar *et al.* (2010: 6) report that more research is required in this field, particularly in how teacher educators can actively stimulate and motivate the development of higher levels of reflective practice. Findings from this study might therefore be of use to teacher educators who are working online with their trainees by providing empirical evidence of the impact of practical strategies used to develop a working, evolving community of practice that promotes reflection. In addition to this, it is hoped that this study might add to the literature on how a teacher educator can set up and develop an effective collaborative online environment designed to train pre-service teachers to become reflective practitioners, and how this reveals itself through the online written discourse created.

5.3. Research methodology.

5.3.1. Nature of the action research process.

The action research framework provided an essential structure to direct the research. This researcher had never moderated online virtual environments of this kind over a period of eight weeks; only university courses with a Blackboard site but this was predominantly used for uploading lecture and assessment material. The discussion forums were rarely used as a tool. Therefore, this was new learning for this researcher making Aristotle's (384-322 B.C; Book 2, chapter 1:1) particularly relevant to this study:

‘For the things we have to learn before we can do them, we learn
by doing them’.

In reality, only through experiential learning and task repetition was it possible to become an effective online moderator and online teacher educator simultaneously. With regard to experiential learning, it is possible to read accounts from other research on how successfully an online environment was developed to improve reflective practice but each context is unique and variables characteristic of that context renders any account of previous research particular. In addition, once a research project is underway, repeating interventions to improve or merely to confirm their worth is essential in order to change or fine tune strategies used to obtain the research goals.

The model cycle offered by Nunan (1993) was the one applied for the action research undertaken. It moves from an investigation to a preliminary investigation then on to a hypothesis followed by an intervention, then an outcome and the reporting of that outcome. To move from one of the stages to the next in this cycle, a great deal of reflection, action and evaluation of action was required. Prior to the first case study, a very basic plan for the action research had been prepared (see figure three) starting with the investigations focusing on how to ‘develop online interaction’ and how to ‘develop participant reflection’. These investigations grew over time and had the action research cycles not been adopted, it would not have been possible to construct the ‘developing online awareness and community model’ or the ‘developing teacher reflective practice online model’. These two models were created and refined over three case studies and were the products of much trial and error cycles of practice and relevant academic research in action while the case studies were being conducted.

It can be noted that there were some pre-conceived ideas about what might be done in particular situations as a researcher-practitioner but it was only in those situations, that ideas could be tested and furthered. My own training and experience as an ESOL teacher as well as a Master of Science in Teaching English for Specific Purposes from Aston University, UK (2002-2006), offered some knowledge and practice of reflective teaching and learning through action research cycles. The benefits that could be attained from this for professional development were known. In addition, as presented in the context for this study, reflection is an essential component of the Hong Kong Institute of Education’s practicum assessment. Therefore, reading through the assessment criteria for this before embarking on trainee supervision, perceptions were made that

there were certain expected outcomes from the practicum experience and the portfolio reflective assignment. These were evidence of innovation, self-assessment, analytical skills, and critical as well as original observations.

It is believed that this thesis also demonstrates that action research methodology is most effective when addressing real life issues. As is the case with this genre of research, there is an attempt to represent a 'slice of life' (Hammersley and Atkinson, 1995: 10) through situated activity using 'a set of interpretive, material practices which make the world visible' (Denzin and Lincoln, 2003: 4). As Seymour and Davies (2002) argue, this type of research is for people not only about them. This is the essence of action research and what this research set out to achieve. There are two main reasons for making this assertion - positionality and collaboration. Both of these notions are key elements of action research methodology. Positionality is important because a researcher is at once an insider and an outsider: an insider as a participant in the context under study; an outsider as researcher seeking to further the field of research under examination. Collaboration is essential because at all stages of the research, extensive trainee participation was required to construct the models established; and feedback from trainees was invaluable in this process.

Positionality.

'Positionality occurs not only in terms of inside/outside, but also in terms of one's position in the organizational or social hierarchy, and one's position of power vis-à-vis other stakeholders inside and outside the setting'. (Herr and Anderson 2005: 41)

Herr and Anderson (2005) offer a continuum of degrees and outcomes of positionality for the action researcher. This scale moves from research insider on the far left to research outsider on the far right. Conventional social science research where outsiders study insiders often without their awareness that the research is occurring is on the far right. The degree of researcher participation is highest at the center of the scale. On the far left of the scale the researcher is an

insider to the research setting, and the focus is on the researcher's own practice in relation with the research setting.

In this action research, this researcher's positionality moved according to the role that he was adopting online. There were the multiple roles of teacher educator; field experience supervisor; and teacher-trainee assessor in the organization. At times positionality was closer to the middle of this continuum while participating in dialogic communication with trainees; at other times, it was closer to the far left side while the research was primarily conducted to facilitate trainee reflective practice and develop an increased knowledge base for professional practice. At other times, researcher work involved staying on the right hand side to only observe and assess, and not participate. As Seymour and Davies (2002: 390) suggest, this can be a disadvantage to action research because there is a:

‘Demand for multiple roles that become at times difficult to manage, and that can result in a loss of perspective’.

These multiple roles have been a challenge to this researcher's positionality. However, the working philosophy at all times over each case study was, first and foremost, to support and educate participants no matter the role being taken. The activities and strategies constructed over time have produced an increased knowledge base for professional practice but, more importantly, they have enabled participants to learn about themselves and their practices at an early stage in their careers and from the feedback received to the questionnaire after each case study, they have learnt the importance of reflective practice in their development as teachers. This is above all, what the research aspired to do.

Collaboration.

Collaboration can be seen to have been an essential driving force of the action research. Through a constant interplay between trainees and this researcher, the study supported learner-centered participant-driven experimentation. McNiff *et al.* (2003: 40) posit that ‘action research demands that you work with others’. Further, as Bryan *et al.* (2006) argue, collaboration in action research is of paramount importance as it leads to more engagement and can ultimately facilitate change.

This can be observed in the way that trainees provided feedback to this researcher when difficulties arose such as the problems that they encountered when starting discussions at the beginning of the first case study, and the uncertainty about using the single loop learning cycle, in particular about how to move from ‘reflection’ to ‘generalization’. If trainees had not provided this feedback, the research may not have been successful.

5.3.2. Data collection.

One of the advantages of the online environment that makes it beneficial for action research is the fact that all of the data is stored and can be collected and sorted at will. This greatly facilitates analysis and might contrast to collecting data from research on spoken interaction. In effect, the interactions are already transcribed. This was essential for analyzing the use of the frameworks and cycles. It was also important for the coding processes. Without this, the research purpose would not have been achieved. Enabling this researcher to study a large amount of data, compare this data to that from similar projects conducted by other researchers, and to compare these, meant that the action research process to find out how to exploit the online environment to develop initial teacher trainee reflective practice could be facilitated. Reactions to situations could occur more quickly than they might have done if time was to be spent transcribing interactions first. In addition, the forums offer a continuation or stream of presence that is not split up in time as several sessions of data collection in a classroom or in a conference setting produces. Online, there appears to be no separation between virtual sessions as at least one participant is nearly always projecting his or her online presence at any given moment through an online posting. The benefit of this is that there is a constant opportunity to observe the effects of the research and to guide its evolution. In reality, for a project such as this one, there is a constant interplay between collection of data, reflection on data and reaction to data. In this way, the categorization of the posting topics was conducted. In addition, the effectiveness of the reflective framework and cycles could be considered, and when required an example posting or some important input could be offered for demonstration purposes. These content analyses thus provided the basis for decisions on how to build community, how to guide students to develop reflective practice, and how to maintain a steady flow of postings throughout the eight week periods of each case study, during a time when trainees were extremely busy planning, teaching, and assignment writing.

Although the fact that the data is already transcribed would seem to be an ideal attribute of the online environment, it does have its negative impact as well. This is the sheer amount of data that is collected during these case studies. In other words, there are no selective notes in the same way that there might be during an observation. This selection is the first step in reducing the amount of data to be analyzed. This does not occur. Readers have been offered an idea as to the number of postings and the number of words per posting that were collected over the three case studies through quantitative data in chapter four. In fact, the original plan for the research was to conduct six case studies. It became clear during the third case that the aims had been achieved and that conducting further research might not add considerably to these. Essentially, the data might refine the models constructed but they would not change them considerably. It is evident that for the double loop cycles to be effective, a longer teaching period than eight weeks would be required.

It was decided that it was good practice to use data from participants' postings to demonstrate usage of the single and double loop learning cycles and to comment on these so as to explain why they were chosen and why they were deemed effective applications of the mechanisms. Only single examples of these applications are offered in the results sections, not only because these postings were extensive and good examples of model usage, but also because it was uncommon to receive whole or quasi-whole texts that could be presented as they were written. Very often, the postings were quite short and only concerned particular aspects of the frameworks or cycles used and were connected over longer time frames, making them difficult to use as clear examples for data presentations.

Data collection tools.

The research journal was invaluable. It was used to write and then read about information and reflections on participant postings. Without it, observations and resulting understandings regarding certain forums may have been lost as they were steadily built up over the eight weeks. It is clear that without these records, mapping these thoughts chronologically by stating which forum and whose posting the texts belonged to, it would have been extremely time-consuming trying to find them again online by skimming the threads constructed. From these research journal archives, it was possible to explicitly note example texts that could demonstrate the

application of the reflective mechanisms. The journal was also used to record which texts to select to present the different Socratic dialogue moves that were developed over the three case studies. Again, only certain texts, deemed to be exemplary for these purposes were selected. In addition to the textual analyses conducted on online participant postings, the end of case study questions provided me with feedback on the research practices that had been undertaken. This feedback was, for the most part, very positive, and, as is common with action research cycles, provided information to use to maintain or improve the case study to follow. Finally, one other data collection tool was email. The original plan was to use this sparingly at the beginning of the case studies by sending out a communication briefly stating the rules of engagement for the research projects and explaining a little about online learning and communities of practice. However, occasionally emails were received from participants who did not want to post their messages for all involved to see. In this way, email was a more personal method of communication. One reason for this was to save this researcher's face (this concept of face has already been discussed in the previous chapter). This is demonstrated in the message below:

"My fellow schoolmates and I, we think e-learn will have a positive impact for our teaching practice but we would welcome any suggestion you recommend about a topic to write about."

In other words, at the beginning of case study one, trainees had not been provided with enough instructions for guidance. Another reason for emailing was to save a trainee's face. Sometimes they would send emails to this researcher if they were not sure what to write or how to write it. One trainee who had sent me at least two emails during a case study wrote in response to one of the end of case study questions:

"I was sometimes embarrassed to share my problems. The online site meant that our reflective practice was for public exposure. It made me feel uncomfortable and reserved."

Although this attitude was rare among participants, it is clear from this that the online environment is not suitable for everybody. There is definitely a need for users to be open with

each other, and share their experiences and feelings. This is the contrary to the participant praise above: ‘through asynchronous chat, all members can express themselves, not only the more extroverted in the group’. Given that these trainees are operating in a second or foreign language, it is remarkable that there were so few comments of this ilk.

5.4. Major threads emerging from the findings.

In this section, the major threads that emerge from the findings and the conceptual frameworks used both to measure interaction and reflective thinking will be examined and critically assessed. This is done by using the questions compiled to meet the objectives of the study.

5.4.1. Developing an online community of practice.

The participants did actively engage in e-journaling and discussion online. As the quantitative data reveals, three hundred postings were collected for analysis. This meant that for the most part, each participant uploaded at least one posting per week. These postings generally consisted of around one-hundred words. Despite the figures, participation in the e-journaling and discussions online required setting up: levels of language formality and ice-breaking activities to encourage sharing were necessary. These requirements suggest that participation in e-journaling and discussion online is not something that just occurs without facilitation. This is in contrast to Renninger and Shumar (2002) who report that their on-line environment and education COP model ‘TAPPED IN’ grew organically, with very little scaffolding needed.

For the first case study, this researcher uploaded a ‘welcoming and encouraging’ message (as advised for stage one ‘access and motivation’ for e-moderating by Salmon, 2000, 2004). This was in the form of an email inviting trainees to participate in the research. For this email, I pinpointed some key areas for the benefits of using the site including less isolation during block practice, potential to share experiences and question problems, and to upload and share lesson plans. However, it became evident during the first case study, as participants were not using the site as was hoped, that some form of ‘breaking the ice’ was required. Based on feedback from a student, it was discovered that students had found the email interesting but had not understood what to do with regard to the site. When a participant was asked to explain further, she stated:

“We were waiting for some message from you (this researcher) to tell us what to do. We didn’t know how to start or what to say. I suppose I could have started chatting, like SMS, but I thought this was more serious... more academic.”

Consequently, what was needed was more than a simple socialization activity. As a result, the ‘developing online awareness and community model’ was constructed in case study one and was also applied over the other two case studies that followed and it was carried out in the order presented. This was found to be an effective sequence in fostering an appropriately incubated COP. This is also in support of Downing *et al.*’s (2007) findings that interesting tasks that encourage socialization will increase the use of a discussion forum. Consequently, these participants needed to know that participation would be interesting and above all that it would be worthwhile. The notions for the ranking activity facilitated this. They had already been briefly touched upon by the email but this time, trainees were asked to reflect on issues such as self-learning by writing down reflections; sharing these reflections with significant others and receiving feedback from them; and learning by reading and responding to significant others’ writings and to manipulate these issues by ranking them in order of importance and justifying their rankings. This activity manipulating these online community benefits helped to give value to the community and its purpose. The activity was also much more than a simple chat, which was made clear to participants. In this way, demonstrating that a more formal academic register was required was motivating for participants.

The ranking was then followed by a socialization activity. In the first case study, the social interactions following the ranking were in stark contrast to the lack of interaction during the initial timid beginnings. By looking back at the research journal during this time, it is clear that there was a great deal of excitement by this change. It is written:

“The implied meaning of these messages is we can work together and find this online interaction interesting; and we should not be afraid to discuss matters, including sensitive topics, nor to be critical.”

After the ranking and discussion of the first case study, one of the trainees who had been silent during the first twenty four hours was openly discussing political issues such as the mainland Chinese child policy. It is this researcher's belief that the need for formal academic register at the beginning set the scene for discussion of wider social issues rather than what might have come if trainees had taken on a more informal, to cite the trainee, an 'SMS approach' and discussed hobbies, travel and so on. It is also believed however, that it is important in every online community to have at least one participant who can be described as outgoing, an instigator of stimulus or 'sparks' which 'fire' other forum members to interact. This is in line with what Skinner (2009) also argues. Although he also notes that an inappropriate spark can sometimes have the opposite outcome, in particular, a loss of interest and a lack of user contribution.

Following this socialization, the 'find a similarity' activity was conducted. This was also found to be an effective way to further develop the community through the incubation stage because participants were finding commonalities and thus building community identities. Indeed, other participants also discussed the one-child policy and the wish that they had a brother or sister but that that was impossible because they had been born in mainland China. In addition, although it had not been set up for this purpose, this researcher realized later on that the finding similarity activity was also an effective method for training participants to become accustomed to skimming through threads, which is a skill to be learnt for navigation of online discussion forums. Very often, in one week, eight people using a site comprehensively can create a real spider's web of activity, and this can require excellent skimming (digesting the main topic of a thread) and scanning (finding specific data in a posting) skills.

It is difficult in hindsight to know if the 'developing online awareness and community model' created the COPs or merely fostered their growth: would the online communities have grown without the model? It is believed that the activities developed facilitated interaction, in other words, they aided participants to act. It was this researcher who began the whole concept of having an online community to support trainees in their schools. Trainees were already very busy coping with the stress of a first block practice experience in a state school. In addition, these trainees were not obliged to participate and had no previous experience in this kind of online environment. Considering all of these factors, along with feedback received from trainees that

they were not sure how to go about starting the interactions together, it is very probable that the model did create, rather than foster, the growth of the COPs. The essential component that helped to build the COP was the ranking activity and the follow-up discussion that enabled trainees to realize the benefits that the online community could provide. In this context, merely giving access and doing an online socialization activity, such as introductions, was not enough to evoke trainees' attention. Otherwise, trainees might have felt that they were being asked to do something for research purposes, which is sometimes what happens.

From observations and reflections, it can be observed that the model became effective because it first revealed to participants the benefits of the journey that they were about to embark on. It showed trainees that the purpose was academic and different to social networking. It was also effective because it made clear to trainees that the research was collaborative action research which would benefit everyone involved. In other words, their growth was the main purpose of the research, not this researcher's thesis. Finally, the model was effective because it did also facilitate sharing through the socialization and find a similarity activities demonstrating to participants that the site would also be a place where they could share at any level of thinking, whether that be about social issues or difficult students, or any subject that they felt warranted reading. These points were put across by the 'developing online awareness and community model'. Thus, the model is the answer to the question: *how can an online community of practice be developed?*

5.4.2. Themes that emerge during reflection.

Similarly to Simonsen, Luebeck & Bicean's (2009) findings suggest that trainees are overwhelmingly concerned with practical problems during their first intensive practicum experience such as timetabling and classroom management ('life and logistics', as 40% of postings). The second largest sphere ('discussing instructional approaches, teaching methods and strategies used' as 20% of the postings), although represents some dialogic analysis amongst participants, still relates more to description and is therefore similar to the category 'life and logistics' in its lack of analytic depth. The extent of data in this category is probably due to the lack of field experience that trainees possessed, and in particular their continual need to experiment with teaching methods in the classroom based on previous theoretical course input.

These results also reflect reports from Ballantyne and Bain (1999) on reflective journaling: that much of what was provided represented only the ‘surface’ approaches to learning or mere reporting. However, critical reflection (Zeichner and Liston, 1996), through ‘self-awareness and self-evaluation’, constituted a significant share of the topics discussed. This category belongs to the single loop learning cycle and it demonstrates that effective applications of the Argyris and Schön (1978) single loop model, in particular, ‘*What are my comments on and reactions to the intervention that I have carried out?*’ were common. Therefore, it is clear that participants were actively involved in questioning their teaching and their environments, and accordingly, as Dewey (1933) explicates, were able to be open-minded, and to show innovation through an ‘outreaching for the new’ (1933: 31): to go beyond their own personal school experiences and to empathize with, even absorb, other possibilities of action. This desire is evident in the discussion between Wendy, Rain and Helen (see 4.7), which reveals a construction of knowledge about new practices through experiential learning. In addition, this dialogue demonstrates that participants were often engaged in collaborative discussions prior to, during or after these research cycles. A propensity for open-mindedness is also shown in the volition to entertain criticism from others in this section. Thus, participants could be construed as ‘Alert Novices’ (see Melville, Bowen and Passmore, 2011), as they were able to empathize with, absorb and improve the practice of their colleagues, and their own. However, despite this open-mindedness to new ideas and significant-other postings, few reflections, over the three case studies, were related to ‘discussing broader issues in education’ (only two percent of the total). This suggests the need for this genre of research in contexts such as these to promote a more process-oriented training for teachers, offering more practice to develop these higher order skills.

5.4.3. Fostering teacher reflection through online means.

In the following section, the model for developing reflective practice online is discussed.

Daloglu (2002) / Valli (1993) hybrid as a first step in developing reflection.

As predicted, the Daloglu (2002) / Valli (1993) combination was found by participants to be accessible and applicable. Reflections using these mechanisms were personal, and participants were open to share their personally-gained contextualized knowledge (what Valli ((1993)) describes as ‘dialectical reflective content’). For the first step of using the Daloglu (2002)

framework, it was encouraging to observe that this could enable trainees to present ‘open-mindedness’ (Dewey, 1933) by giving attention to alternative possibilities. Wendy’s posting in chapter four is relatively critical about the practices of the educational system itself and the ‘taken-for-granted’ (tfgs) in the instance presented in the results. The trainee critiques the traditional teaching approaches and juxtaposes these with newer, communicative techniques. However, in order to pass onto the ‘generalization’ stage of the single loop learning cycle, reflections required ‘deliberative reflective content’ (Valli, 1993) also, in other words, relevant reading based on work from expert practitioners in the field. Trainees needed guidance to connect their experiences to this. As demonstrated in the results, it was another trainee who responded to Wendy’s posting and connected Wendy’s post to Valli’s (1993) notion of deliberative reflection. This reveals that through collaborative online learning, effective knowledge co-construction can occur. The postings demonstrated that a trainee is able to bring up a learning point that collaborators are able to empathize with, share their own thoughts about, and suggest further reading for, in order to construct knowledge.

The single loop learning cycle.

Although the combination of Daloglu’s (2002) and Valli’s (1992) frameworks guided trainees to state what they would like to implement in their teaching, and recognize the kind of barriers that they might face when trying to implement these (in Wendy’s posting, the time issue of the overloaded curriculum), it does not require participants to try out and comment on an intervention. In other words ‘what I would like to implement’ is present but ‘what I implemented’ and ‘the effectiveness of this implementation’ are not present. It was the lack of intervention in the Daloglu (2002) framework that was found to cause trainees problems when they tried to move to the single loop learning cycle. In order to facilitate the integration of the Daloglu (2002) / Valli (1993) hybrid to the single loop learning cycle, this researcher needed to convert the cycle into a flow chart procedure (figure eighteen). The Daloglu (2002) questions were embedded in this flow chart and Valli’s (1993) dialectical reflection made part of the ‘generalization’ stage of the cycle. In addition, so that the Daloglu (ibid) framework would fit in entirely with the Argyris and Schön (1978) cycle, there was an adjustment made to it. This was the question ‘*what are my comments on and reactions to the intervention?*’ This, it was hoped, was to be moving trainees from hypothesis to praxis. It was from Moon (1999: 160) that this

researcher discovered that the need for action helps to lead to a deeper learning taking place. She states (ibid):

‘The requirement for action drives the quality of the learning in the whole cycle and prevents it from stalling at a surface learning stage.... The learner would not have a sufficiently coherent grasp of the material to put it into action.’

This is also reflected in Dewey’s (1933) notion that the outcome of reflection should lead to modified action. In other words, as noted in the literature review, meaningful reflection occurs through a cycle action and reaction or disequilibrium and restoration of equilibrium, which translates theory into practice; a process called ‘praxis’. It is believed that theory and practice can mutually inform each other to lead to deeper learning.

The results from this flow chart procedure were positive. The flow chart graphic gave more detailed guidance and was thus found to be more accessible to trainees. Indeed, all of the participants over the three case studies preferred to use this step by step process for their initial action research rather than the cycle graphic. The use of graphic organizers in teaching and teacher training is not a new concept. Each graphic has attributes that enhance students’ thinking skills enabling users to make connections between segments of information and breaking information into manageable chunks making the relationships among the separate ideas more visible. When choosing an appropriate organizer, it is important to consider the nature of the information to be conveyed. The reflective process is a complex topic and the single loop cycle offered by Argyris and Schön does not offer enough detail to facilitate its use. This is also true for the double loop learning cycle but to a much greater amount due to its level of conceptual complexity, which is discussed further below. With regard to the single loop cycle, in this researcher’s opinion, it is not effectively didactic as a standalone graphic as it is difficult to apply for an untrained and inexperienced user.

The double loop learning cycle.

As mentioned in the literature review, the objective of this research was to facilitate critical reflection through the development of what Dewey (1933) describes as ‘open-mindedness’,

‘responsibility’ and ‘wholeheartedness’. These provide individuals with the state required for genuine, critical reflection, which leads to the expression of personal empowerment and the transformation of the individual and, it is hoped, by extension, society (see Harvey and Knight, 1996). It was felt prior to the research, that the double loop learning cycle might facilitate the growth of Dewey’s notions. However, the double loop learning cycle was found to be the most problematic graphic aid. As displayed in the quantitative results, only two percent of all forum reflections reached this level of thought. With the other frameworks and the single loop learning process, participant reflections could be used to expand upon, and to provide a simple template with instructions for participants to follow. Socratic dialogue could also be used to engage participants in the required reflections. However, even though a model response was supplied, students did not engage in the double loop learning process.

These observations demonstrate the difficulty of this level of reflection. Indeed, according to Sparks-Langer *et al.*’s (1990) hierarchal framework for reflective pedagogical thinking, the level seven reflections emerging from a process such as the double loop learning cycle is the highest level of reflective achievement. Moon (1999) even goes so far as to say that this genre of reflection might be an innate skill. She states (1999: 145):

‘Whether or not the capacity to function in this manner can be coached is an interesting issue’.

The fact that certain individuals engaged in the process of conscious double loop learning reflections demonstrates that it is achievable. However, from this study, it is questionable that it can be facilitated without explicit, extensive guidance over a longer time frame than that used in this context.

5.4.4. Effects of asynchronicity on reflective practice.

After the first case study, it was clear that providing trainees with frameworks, cycles and flow charts to develop reflection were extremely useful strategies. However, at times, users needed further scaffolding. I found, similarly to Yang (2009), that using Socratic dialogue to question postings and ask for further reflection was particularly effective. Yang (2009) reports that her

students found such interaction with instructors encouraged trainees' thinking to go deeper and become more productive (Davis, 2003). She posits that instructor intervention created a shift from merely twenty percent to over forty percent of student reflection productivity. She states (2009: 17):

‘It is not difficult to see that teacher educators did play a vital role in promoting these student teachers’ views. The (two) instructors gave feedback and developed their student teachers’ own views and capacity for self-critique and self-reflection.’

In the same way, this researcher found that online guidance using Socratic dialogue was extremely beneficial for some trainees. Working from the basis set out in Walker et al's (2004) typology, presented in the methodology chapter, this researcher came to develop sets of moves more relevant to his context. These moves evolved into the construction of a two-stage model made up of two pairs of moves. These are: ‘empathize and restate’ and ‘encourage and enable’.

Despite the fact that this technique was found to be effective, the following caveats should be shared in these discussions. This kind of interaction can become very trainer-centered. Further, it is suggested that a trainer refrain from what might be too strong a ‘critique’ or ‘counter’ as this could threaten a trainee’s face (see Brown and Levinson, 1987: 11) and lead to the creation of an affective barrier, and a potential breakdown in communications. ‘Face’ refers to the:

‘Positive consistent self-image or ‘personality’ (crucially including the desire that this self-image be appreciated and approved of) claimed by interactants’ (Brown and Levinson, 1987: 66).

The forums are a collective, thus the comments are shared. Consequently, if a trainer is observed offering much more assistance to a particular participant or being overly critical, it is possible that the trainee’s face may be threatened.

5.5. Impact of the research on trainee teacher participant learning.

In this section the types of learning believed to have occurred during the research will be presented. These types are experiential, collaborative, vicarious; and language learning. It is also believed that trainees have had insight into how a facilitator of learning operates in addition to skills that an online moderator uses when managing a VLE for learning.

5.5.1. Experiential learning.

The principal focus in this research was to examine how an online collaborative environment can be exploited to develop experiential learning through reflective practice, and from the learning that was observed as well as the feedback that trainees provided in the end of case study questionnaires, it can be confidently stated that this was achieved. The overwhelming majority of participants said that they had found the mechanisms useful for reflection. One trainee noted that his reflections had become much less superficial having had the experience of following a reflective practice procedure such as the single loop learning cycle. One trainee wrote:

“We were encouraged to be creative in writing and expressive in reflecting on our experiences. The learning loops seemed hard at first but then my reflections became more interesting. The more I used them, my confidence grew and I learnt that I could think in new and different ways.”

Other positive feedback about experiential learning included ‘finding solutions’; ‘observing how feelings changed’; ‘being more open-minded to others’ ideas’; and ‘a chance to reflect on overall performance’. From observations and participant feedback, the training participants have undergone in developing reflective practice has provided them with ways to appreciate experiential learning. Throughout each case study, learning from experience was the core of the procedures even if reflections seldom provided participants with new paradigmatic understandings about their social worlds. By applying the adapted single loop cycle procedure, participants have become experienced action researchers. They have performed the action, evaluation and reviewing stages involved in experiential learning. They have also thought about goal setting through the Daloglu (2002) framework: ‘what I would like to change’. Through

reflection, learners were guided to consider each experience at a personal level even if this only concerned the more technical rather than social or ethical issues.

5.5.2. Collaborative learning.

In the feedback from participants, there also included the following phrases that were used to praise the sites: ‘receiving immediate feedback’; ‘sharing’; ‘exchanging ideas’; ‘learning from each other’; and ‘reading advice from peers’. A substantial characteristic of this project has been the social and collaborative learning that have taken place. One major benefit to this system is the opportunities for learning through observation and participation in communication. Thus, each time advice or an explanation based on this researcher’s experience as a teacher educator was offered, this could be discussed and participants could learn whatever they were ready to learn from it. Thus, knowledge was given for attention and according to each participant’s readiness to learn, retention. This is related to the principle of the zone of proximal development (ZPD) provided by Vygotsky (1978) and the closely related concept of scaffolding. An essential aspect of the scaffolding procedure is that as learners become more confident and more able to act, the amount of support is reduced. The ZPD is:

‘...the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers.’

An interesting sign that learning from scaffolding had occurred came from two participants’ end of case study feedback. One participant wrote:

“Someone wrote the saying: “If you give a man a fish, you feed him for a day. If you teach a man to fish, you feed him for a life time.” I had never heard of this before but I deeply understand the rationale now and the importance of the teachers’ role. Now I start to learn how to nurture confident

children and equip them with both self-learning and problem-solving abilities in various circumstances. Without the e-learn, I would not have learnt what this saying means.”

When asked to expand on her point, she stated that she found this similar to the processes of reflection that were set up to guide her from the beginning. She felt that she had been supplied with a system that she could now use on her own to continue her reflective practice. Similarly, another participant, in her criticism of the reflective process developed, stated that the Daloglu (2002) / Valli (1993) frameworks followed by the learning cycles were useful as guides for reflection but that the process became repetitive and thus, a little onerous. This participant noted that rather than following the same procedure for every learning outcome in the future, she would like to work out her own system for reflection. In this researcher's judgment, although this might be a criticism of the system established for this project, it can also be seen as an extremely positive notion because the participant demonstrates volition to move from a guided system to thinking about her own personalized system to develop her reflective practice. This is the workings of the construction zone Vygotsky (1978: 86) refers to and the ultimate objective of scaffolding. It is the goal of all scaffolded tasks, as Bruner's (1966) instructional strategy stresses, that learners pull out information from relevant sources to feed their immediate cognitive structures and current understanding. They transform this information and use it to go beyond it by adding to it, which allows them to advance in their learning individually. Through her criticism, she has demonstrated this process' outcome. From observations throughout the three case studies conducted, it was noted that participants greatly valued the support that they gained from each other and from this researcher as educator and moderator.

5.5.3. Vicarious learning.

If trainees are given the chance to read other's postings about teaching practice, they are provided with opportunities to read about and attempt to understand the lives of their peers and trainer. They may also learn about and identify with other participants' beliefs about education. Individuals are thus exposed to and encouraged to think about what they read. It is hoped that

this leads to social learning and an extension of a trainee's own knowledge and repertoire, which is the crux of vicarious learning (Bandura, 1986).

By analyzing the content of the postings, it was observed that participants were absorbing ideas from each other without explicit referral to the fact that it was learning. It was noted as an effect of the 'end of week collage' that participants were copying and pasting their peers' remarks from the collage onto new postings and then using them for reference to write a reply underneath or to extend in order to construct further meaning. The result of this activity was incidental or implicit learning. Kerka (2000) defines incidental learning as:

'Unintentional or unplanned learning that results from other activities'.

Firstly, at the segmental level, lexical items such as 'asynchronous', 'critical incidents' and 'threads' were learnt without any explicit reference to them. This was ascertained when threads from a trainee were collated and she was asked whether she had been familiar with these terms prior to the case study. She reported that she had heard of 'critical incidents' but did not think that she had used it in context before. For the other items, according to the participant, these had definitely been learnt during the case study, and without the participant consciously noticing this. Secondly, vicarious learning took place through the collective shunning. This style of vicarious learning is part of 'legitimate peripheral participation' (Lave and Wenger, 1991), in which inexperienced individuals are included in roles of limited responsibility while they work to master needed community knowledge and practices in order to reach full participation. A communal identity is born which represents certain ideals and notions about practice, which are shared. The trainee who was shunned had to learn certain rules of engagement before she was accepted into the community.

5.5.4. Language learning.

When the trainee communicated that participants were waiting for some guidance as to setting the formality or register of the language to be used on the site, she stated that she was not sure if our communications would be similar to those found in SMS texting. This researcher had not considered this prior to this feedback, but knew that participants would need to read academic

literature in order to apply Valli's notion of 'deliberative' reflection. The participants are also part of an English Language enhancement course, which is the B.Ed (English Language program). Therefore, it was logical to ask participants to use language which was more formal than SMS texting language. That said however, in the data there are characteristics of both academic and relatively non-academic language. In fact, the discussion forums facilitated a mix of registers and have thus a particular singularity in style. In effect, they enable learners to practice both formal and non-formal language communication. These observations have been reported in a previous study (Brooke, 2012a). Extracts from participants presented in the findings can help to demonstrate this. Sasha wrote:

"The achievement can be examined through homework, which contains a process of reflection and evaluation. I think it can present the best about student's ability to infer the whole from a single piece of knowledge."

In addition, Cynthia wrote:

"How come I had so many things needed to be improved in one lesson? I felt lucky is that my supporting teacher is so honest and she gave me such straightforward feedback. I think I will have learnt a lot by the end of the teaching practice this time though. I'll be positive."

These postings differ in formality, which reveals that this online environment is a rich source for practicing interpersonal resources (see Halliday, 1982). First, in Sasha's posting, more academic terms are used: 'examine, process, reflection, evaluation, infer, whole, single'. These terms are more commonly representative of written discourse and are found in the Academic Word List, compiled by Coxhead (2000). In contrast, Cynthia's language: 'how, come, things, felt, so, honest, gave, me, a lot' is much closer to spoken discourse, and appear in the General Service List, a compilation of the most frequent two thousand words, compiled by Bauman (1953).

Bauman's (1953) list is the most commonly-used words in the English language starting with 'the, be, of, and, a.

This mix of language formality on the same screen is a very interesting component of the online community and as learners are exposed to these differing language models, some incidental learning concerning interpersonal resources should take place.

5.5.5. How a facilitator of learning operates.

In the collaborative learning section above, a trainee's feedback is that she learned about 'how to nurture confident children and equip them with both self-learning and problem-solving abilities'. This was considered as some of the most encouraging feedback received about the way the cases studies were managed. There are many definitions of a facilitator of learning but perhaps its core meaning is presented well by Rogers (1967: 57). He states:

'The function of the teacher is to concentrate on creating a classroom climate to facilitate self-initiated learning, the freedom to learn and learning to be free.'

To do this, as Rogers (ibid) in the same extract, a facilitator needs to be:

'A provider of resources and raw materials which the student can use, as well as a guide to channels, human or otherwise, by which students can avail themselves of resources relevant to their own needs.'

The reflective mechanisms offered to learners, and the Socratic dialogue embedded to promote reflection were strategies that offered resources that trainees could use. In sum, they were structures set up for them to guide them to reflect about and read about issues that were important to them based on their practicum experiences. Trainees were never once given a topic that they were required to discuss. Neither were trainees obliged to use the sites. Thus, any theme brought up for reflection and further discussion emanated from them, not this researcher, and any

trainee who was unable to participate was not coerced. From these observations, it can be stated that trainees understood that they possessed a ‘freedom to learn’ about the topics that they felt dear to them. In addition, the reflective structures set up acted as scaffolds to learning with the purpose of providing trainees with training for reflective practice that they might later adapt and individualize. In this way, they were ‘learning to be free’.

5.5.6. Facilitating and moderating a Virtual Learning Environment (VLE).

‘Technology makes its best contribution when it is implemented in the service of high-level strategic ambitions, less so when we use it ‘because it’s there.’ (Laurillard *et al.*, 2009: 299)

Through this research, it is believed that trainees and like-minded action researchers have been able to learn how a VLE can be used for innovation in particular facilitating reflective practice. It is hoped that this will cascade through this peer group to others when these trainees begin to work full time in schools after graduation. In particular it is hoped that these newly-qualified teachers will recognize and enjoy the pedagogic potential of ICT because it relates to their own philosophical underpinnings about teaching. It is also hoped that through the journal articles (Brooke, 2012a, 2012b, 2012c) and conference papers (Singapore, May, 2013), this study will be disseminated to other researchers who might draw benefits from it.

The VLE used for this research is Blackboard. At the time when this research began this was being utilized in the Department of English without a strategic plan for applying adapted pedagogical approaches. There were innovative, ‘early adopters’ among the staff (Hannan, 2005) but these made up a very small minority and the adoption largely related to using the VLE for online course assessment was synchronous chat in a virtual classroom and assignment hand-in using Turnitin. Through practice and further reading occurring throughout the doctorate studies, this instructor sought other teaching and learning potentials of design for online learning based on constructivist and situated learning theories. (These have been discussed in chapter two). To do this, the site needed to be customized for the output representations of multiple authoring.

There were eleven forums created in all for each case study: an introductory forum; a pre-block practice forum; eight forums to be used for each week of the eight-week block practice; and then a final post-block practice forum. These communication mechanisms were established and maintained to facilitate and capture shared representations. Due to the flexibility (reach), the students could have extra support from the system and these forums or snapshots were representations of the community output, which it was hoped could strengthen shared repertoire identities and facilitate further community growth.

One interesting moderator strategy exploiting asynchronicity that emerged, which is not in the scope of this study to report in the results, was the creation of weekly snapshots or collages of participant communications. This is reported in another publication (see Brooke, 2012c). A selection of postings over the week presenting the primary foci of discussions or presenting a summary of the weekly e-blog of each participant were collated and combined to create a brief overview of the weekly activity and this was then sent to all participants as an email attachment. This was done to keep those busy participants who could not log in to post informed about the discussions. In this way, no one was left behind at any time. Thus, design is a social practice, and moderators are required to sustain a professional community, even if each member is working in physical isolation (Masterman, 2008a). Without this strategy, some participants might not have been able to keep up to date with occurrences online and might have ceased to use the VLE.

In addition to the collages, a basic moderator skill that I hoped to have conveyed to trainees through the use of Socratic dialogue moves, and other everyday interactions, is the use of tentative, non-authoritative language or hedging (see Hyland, 1994) and encouraging language when interacting with students. Tentative language includes modal verbs ‘might’ and ‘may’; modal lexical verb ‘tend to’; modal adverbs ‘sometimes, often’. It also includes ‘if’ used to create a concession, for example, rather than using an imperative ‘please refer to’, a moderator might say: ‘if you’d like to follow up on this topic’. Encouraging language might take the form of a closing phrase such as ‘great talking to you this week’ or ‘hope this week’s discussion was useful’. I became aware as I was answering postings, that when I was too authoritative in my language, participants would sometimes not take up the discussion. Instead, they might say ‘thank you for the advice’ but then not respond to it later on.

In sum, there is a need to customize when instantiating a design. Each situation is different and the site must be compatible with the community it is set up for. In addition, the organizational strategies and the use of carefully constructed language to maintain a site is essential in learning design. Thus:

‘Human support remains an essential feature of learning design implementations’ (Beetham, 2008).

Finally, and evident from what has just been written, any moderator is at any time, a researcher, discovering how to improve the effectiveness of his or her design for teaching and learning (Laurillard, 2008). Therefore, it is hoped that this study may be disseminated as aspects of good practice to other like-minded professionals, which might benefit future practice.

5.6. Chapter conclusion.

In this fifth chapter, three main sections have been presented and learning points relating to these discussed. These sections are:

the research paradigm and methodology used for data collection;

the major threads that emerged from the findings;

the impact that this research has had on trainee teacher participant learning and in particular experiential, collaborative, vicarious and language learning in addition to learning about how a facilitator of learning operates and how to moderate a VLE such as Blackboard for learning.

Concluding thoughts

6.1. Chapter introduction.

In chapter six, to conclude, there is first a closing summary explaining what the research project was, its aims, purposes and methods, and how these findings exemplify each of the research questions explored. Then, the study is set in relation to recent trends in educational research developments. Following this, there is a critical analysis of the educational environment in this researcher's context describing why this type of research is required. Next, an evaluation of the contribution of this thesis to the field of developing teacher reflective practice follows. To do this, a discussion takes place presenting what the thesis has achieved in context, dealing with each of the main aims of the research including the impact that the thesis has had and will possibly have on teachers' professional practices. After this, there is a section evaluating the originality of the work, followed by another of personal reflections about how this researcher's practices and beliefs have evolved during the thesis period over four years. Finally, an analysis of the limitations of the study and a brief summary of future aspirations for developing this research is offered.

6.2. Purposes and methods of the research project.

One overall purpose framed this investigation:

To gain an in-depth understanding of how an online environment (VLE) can develop the reflective practice of pre-service EFL teachers.

Proceeding from the study's purpose, the research had the following principal objectives:

1. To examine how an online community of practice can be set up and developed;
2. To examine the nature of reflective practice in a diverse teaching community;
3. To examine the efficacy of an online environment's e-journaling and discussion forums for the development of reflective practice;
4. To examine how e-journaling and discussion lead to change in reflective capability.

In order to meet these objectives, the following questions were asked during the study:

How can an online community of practice be developed?

What are the themes that emerge during reflection on practicum matters?

How can teacher reflection be fostered and developed through online means?

What are the effects of asynchronicity on reflective practice?

What are the trainees' perceptions on the development of their reflective practice having used e-journaling and online discussion forums in this way?

In addition to the overall purpose, objectives and questions, there was a parallel and continuous reflective commentary analyzing the process of the action research of the study. This reflection examined how the action research paradigm could inform and guide this practitioner to achieve the purpose. The ongoing question with regards to the research paradigm conducted throughout the study was: **what is the exact nature of the action research process as it occurs within this particular context?**

6.2.1. Developing an online community of practice.

A model was established to set up and build an online community of practice which provided an effective environment for participants to share and discuss their experiences online. This was entitled the 'developing online awareness and community model' and it was found to be necessary for the short-term COPs conducted for this research. The model consisted of an initial ranking task to set the level of academic language and to raise awareness about the potential advantages of the online environment. It was then followed by a socialization task with participants openly sharing chosen aspects of their personal life histories; and then a final task, asking participants to find similarities amongst themselves to explicitly build social bridges. It was found that a systematic opening to the online conferencing system not only developed a culture of trust and mutual respect, but also helped inexperienced online users to learn how to use the online system effectively, in particular the navigation of threads.

6.2.2. Themes that emerge during reflection on practicum matters.

In accord with other research in the field (Ballantyne and Bain, 1999; Simonsen, Luebeck and Bicean, 2009) on reflective journaling, trainees' reflections tend to center on the 'surface' problems e.g., the life and logistical concerns that arise on a day to day basis such as finding the time for lesson planning and coping with timetabling difficulties. However, despite this, there were also a substantial number of postings concerned with self-awareness and self-evaluation

(twenty-seven percent), relating the notion that participants were examining themselves by engaging in experiential learning processes. This demonstrates that if novice teachers are provided with an appropriate structure, they are very capable of developing their own action research cycles over time frames of several days or weeks.

6.2.3. Fostering teacher reflection through online means.

A model was established to foster and develop teacher reflection through online means. This was entitled the ‘model for developing reflective practice online’ and was found necessary to scaffold a reflective practice process from initial experience through to contemplating the broader issues involved in that experience such as political, social or ethical questions. The process was first staged by applying the Daloglu (2002) questioning framework and Valli’s (1993) deliberative reflection. These elements were then developed to aid trainees through the first or single learning loop cycle, which is an action research cycle with problem, intervention and reflection on intervention stages. This process was further scaffolded by converting the single loop cycle to a flow chart diagram. This scaffolding was found to be effective. However, the movement from single loop to double loop learning cycle was more ineffective. Trainee reflections applying the double loop learning cycle were relatively rare, only two percent of the total. Feedback from the few participants who attempted the double loop learning cycle, found the notion of linking an ‘emergent knowing’ or ‘what they have learned from the experience’ to a ‘new paradigm’ or new belief system based on reflection on action problematic. This ‘new paradigm’ demands learners to understand the experience with regard to much broader issues such as community factors and ethical, moral or political issues. It is evident that this is a reflection process of complexity.

6.2.4. Effects of asynchronicity on reflective practice.

It was found that the asynchronous nature of the online environment communications could be exploited to develop reflective practice. This was done by embedding textual dialogue, also known as Socratic dialogue to develop trainee reflections and collaborative interaction. Certain moves were presented which were frequently utilized at times when reflections required scaffolding or when discussions were seen to require encouragement. In research on applying Socratic dialogue in a CMC environment, Walker et al (2004) revealed several types of discursal move used to develop participant interaction. The most common types of move were

‘probe’ (asking questions to elicit more information from a student) and ‘challenge’ (questions to encourage a student to justify an opinion or argument); another type was ‘counter’ (suggest another interpretation or course of action). These moves were also found to be effective in this research. In addition, for this study, other moves evolved into the construction of a Socratic dialogue two-step model made up of two pairs of moves (step one and two). Step one is ‘empathize and restate’; step two, ‘encourage and enable’. Despite the fact that this technique was found to be effective, the following caveats should be shared in these discussions: this kind of interaction can become very trainer-centered. Further, it is suggested that a trainer refrain from what might be too strong a ‘challenge’ or ‘counter’ as this could threaten a trainee’s confidence.

6.2.5. Trainees’ perceptions on the development of their reflective practice.

The feedback from participants revealed that the models constructed were found to be effective in developing reflective practice at individual and group levels. The Daloglu (2002)/ Valli (1993) structure aided trainees in their use of the single loop learning cycle, which was further scaffolded by the conversion to a flow chart. Open sharing online was not problematic and construction of knowledge through discussion and reading of postings was noted to be significant. One trainee explicitly noted that the socialization e-activities had successfully developed familiarity leading to a reduction of affective factors such as timidity or embarrassment. Another trainee noted that she now felt more enabled to reflect independently. Online freedoms of time and access were highlighted as extremely useful as trainees felt more able to reflect carefully when reading or writing postings and could navigate through the network of forums and find postings from earlier stages during the practicum to reflect on and perhaps compare with newer ones. In contrast, one research participant pointed out that the repetitive use of the developing reflective practice model was arduous and that more flexibility should be offered to trainees to find their own models for reflection.

6.2.6. Nature of the action research process in this context.

The action research framework provided an essential structure to direct the study through both discovery learning and task repetition via cycles of planning, action and reflection. The reporting of these cycles was best depicted as a narrative with a time frame of events. Another hallmark of conducting the action research process was the methodology used for data collection and

analysis. These two tasks occurred continually and simultaneously throughout the study. Consequently, tools common to those used in narrative approaches to educational research, such as observational research notes and personal writings were paramount to the effectiveness of the study. As noted in the results section, the best way to describe the researcher learning that occurred during the action research process is the move from ‘unconscious incompetence’ to ‘conscious incompetence’ to ‘conscious competence’ to relatively ‘unconscious competence’. To work through this evolution, the process needed to be deliberate, purposeful and structured.

6.3. Recent trends in educational development.

Black and Plowright (2010) posit that the terms ‘reflection’ and ‘critical reflection’ are today commonplace and often indistinguishable. Throughout this study, the term critical reflection has meant going beyond reflection at the technical level. In other words, reflecting on more than instructional strategies and classroom resources. Through the experience of conducting this research, this researcher shares Black and Plowright’s (2010: 246) definition of reflection:

‘Reflection is the process of engaging with learning and/or professional practice that provides an opportunity to critically analyze and evaluate that learning or practice. The purpose is to develop professional knowledge, understanding and practice that incorporates a deeper form of learning which is transformational in nature and is empowering, enlightening and ultimately emancipatory.’

In other words, trainees need to enter into a process of reflection that examines their understandings or underlying assumptions about education. Thus, this process should set up connections between past and present schema. It should also set up connections between teaching and learning theories learned at their institute of learning and their own evolving practice. At its most effective point, it should enable trainees to reflect on the ethical, social and political implications of classroom dynamics and how these issues in education reflect on the make-up of society.

Reflective practice is at the heart of initial teacher education programs in institutions across the UK. Pollard (2008) posits that trainees should be skilful at actively implementing methods of enquiry to explore the aims and consequences of their practice. They should also be able to learn from collaboration with peers, and have an open-mindedness to deal with issues critically. One traditional tool used to promote reflective teaching is journaling (see in particular, Bain, Mills, Ballantyne and Packer, 2002; Calderhead and Gates, 1993; Daloglu, 2002; LaBoskey, 1993). However, journaling commonly lacks opportunities for collaborative learning as it is primarily a closed activity. In addition, it is often product rather than process- oriented: a tutor may only read the final product of reflection when it is submitted rather than being significantly involved in the construction of this product before it is submitted. In contrast, the online environment offers tutors the opportunity to work with trainees in an open and collaborative way to develop reflective practice. This has led to some important research in the last five to ten years (see Churchill, 2009; Davis and Roblyer, 2005; Gleaves and Walker-Gleaves, 2010; Hramiak, Boulton, and Irwin, 2009; Lock, 2006; Murillo, 2008; Salazar, Zenaida Aguirre-Munoz, Fox and Nuanez-Lucas, 2010; Sharma, 2010; Simpson, 2006; Yang, 2009) on e-journaling through blogging and collaborative communication using online discussion forums. It has also led to articles published through this research by this researcher (Brooke, 2012a, 2012b, 2012c).

Social constructivist pedagogy (Bruner, 1961; Glasersfeld, 1989; Vygotsky, 1978; Wertsch 1997) continues to be a major characteristic of recent trends in the use of technology for educational purposes. A fundamental reason for the development of VLEs in education is that effective online learning programs such as the one set up by this researcher are based on what learners actually do and how knowledge is constructed over time. Learners need to have access to their reflections and the ensuing discussions throughout block practice to build their knowledge progressively using retrospection. Thus, programs are not merely concerned with the final product of learning, which is often the sole concern of a transmissive view of education. This is process-oriented, learning-centered and learner-centered pedagogy. Salazar *et al.* (2010) compared online data from trainees involved in collaborative blogging at three key stages of their block practice: stage one was *Initial Reflections*; stage two *Theory into Action*, and stage three, *Final Reflections*. They posit that there was evidence that pre-service student teacher reflection increased significantly in critical analysis as the use of discussion forums evolved. Similarly,

Murillo (2008) reports a high volume of student teacher participant interaction online which facilitated increasingly highly-focused topic-related discussions leading to an increase in knowledge of teaching and learning. Progressively frequent blogging was advantageous as the more writing trainees engaged in, the more opportunity they had to review their previous posts, and become familiar with blogging (see also Martindale and Wiley, 2005). Yang (2009) also found that teacher educators helped to raise participants' levels of critical reflection by responding online to student teachers' blog postings. This is what occurs when meanings are explored collaboratively (see McConnell, 2006). Trainees learn from their own postings, from each other and from their tutors. This also facilitates vicarious learning (Bandura, 1986) for trainees who may find themselves in a position of learning peripherally (also known as 'legitimate peripheral participation', Lave and Wenger, 1991) constructing their personas and preparing to participate in interactions. Thus the learning these environments promote is believed to be much more effective than closed individual journaling. Certain research projects are in effect to further the knowledge in this area, for example, the 'Workforce Development Confederation e-learning strategy' (see Lewis and Allen, 2005) at the University of Hull in the UK, which seeks to:

‘...share knowledge and understanding of the underpinning pedagogies that support effective collaborative e-learning.’

Recent research on mobile devices such as iPhones, PDAs (see Gleaves and Walker-Gleaves, 2010) has also demonstrated that electronic communications can facilitate effective peer and tutor support during block practice. Technology offers an almost unlimited freedom of access and content today. Learners can choose to communicate when and where they wish and may communicate with each other synchronously or asynchronously via a number of mediums (for example, SMS, email, wiki, discussion forum, video streaming, and telephone messaging). It is probable, with the increasing use of technology in education that the development and understanding of these different media with regard to developing reflective practice during block practice will increase significantly. This notion is further made credible when these tools can be found in one, easily accessible place such as 'Pebblepad', which is a personal learning space (Hughes, J., and Purnell, 2008; Malita, 2009; Miller and Morgaine, 2009), and is primarily used

in the construction of teacher trainee e-portfolios. Also, work on relating particular media to emotions has already been evolving (Gleaves and Walker-Gleaves, 2010); it may evolve in the research that certain media combined offer a better climate for developing reflective practice than others. For example, it is possible that reflection in action (Schön, 1983) could be better understood using instant voice recordings; trainees could record their situated learning as it occurs in real time.

Research indicates that if reflective practice is to be effective, it should engage at a deeper level than merely the technical level (Dymoke and Harrison, 2008). Another primary reason for the growing interest in the research on developing trainee reflective practice is the asynchronicity of the communication. It has long been argued that transactional distance offers freedoms inherent to the online environment that do not occur in face to face interaction (Anderson and Garrison, 2004; Dewey, 1933; Moore, 1993). Garrison (2009: 2) explains that asynchronous writing has a 'deeper level than merely the technical level.' Time is available online to carefully consider a message; this may lead to an increase in the quality of discourse leading to higher-order communicative content. This content may contain a deeper analysis of emerging meanings and more meaningful messages between interactants, for example, Martindale and Wiley (2005) reported that students' writing became more thoughtful and longer through online blogging. Simonsen, Luebeck and Bice (2007, 2009) also revealed very encouraging results indicating that student participants gained important insights through asynchronous communications. This notion is also presented in an article published by this researcher based on this research (see Brooke, 2012a). Similarly, Yang (2009) found that trainees' levels of critical reflection evolved through asynchronous communication with teacher educators online. In contrast, research on using blogging to develop reflective practice has not been entirely positive. Divintini, Haugalokken, and Morken (2005) found that the use of blogging set up to support novice teachers on a teacher education program was limited and its use as a reflective diary even more limited. In addition, Oti and Clarke's (2007) research found that public blogs resulted in concerns from students about privacy and confidentiality.

6.4. Critical analysis of the educational environment.

One of the main reasons why this research was undertaken was a personal desire to do something that could help trainees to go beyond the centralization of educational practices in Hong Kong. This is maintained and accentuated, as it is in other developed areas, by top-down pressures: textbooks and language teaching worksheets that teachers are not supposed to deviate away from because the language foci in them will be covered in exams at the end of a semester. The practicum takes place in April so even pre-service trainees doing an eight-week practicum are stressed about their students passing end of year exams in Hong Kong state schools. Due to this, I have been told countless times by these trainees that there is no time for innovation, no time to apply the knowledge that was transmitted at the institute of learning, no time for reflective practice.

As a result, little is done to develop reflective practice but much is done to accentuate the practicum experience as a steadfast apprenticeship model during which trainees take on previewed, assigned teaching duties. The end-result is that these trainees replicate the teaching practices of their supervising teachers (Zeichner, 1992, 2006). This reproduces ad-indefinitum, traditional, status-quo practices through imitation and convention (O'Donoghue and Brooker, 1996). I would argue that one of the major effects of these constraints is the prevention of the development of reflective practice, and in particular reflections that might question the status quo and alter practice from the bottom-up. If trainee teachers are so busy with externally-appointed goals, how can they find time to explore and innovate, and find themselves as creative teachers? If they do not have time to reflect on how to apply the theoretical learning that has occurred at the Institute of Education, and to attempt to consider the wide-ranging implications of their practices, how can they develop their own theories of education, and place themselves within these? It is unfortunate that the system that remains is one almost entirely practically-oriented consisting of trainees during practicum who are, for the most part, concerned with technical issues relating to classroom management, and logistics such as course management and academic deadlines. If more flexibility were present, these trainees could spend time developing themselves as whole people, rather than teaching machines.

6.5. Evaluation of the contribution of the thesis to the field.

This thesis contributes to the growing field of research examining how technology can accommodate and develop reflective practice (see Davis and Roblyer, 2005; Gleaves and Walker-Gleaves, 2010; Lock, 2006; Salazar, Zenaida Aguirre-Munoz, Fox and Nuanez-Lucas, 2010; Murillo, 2008; Simpson, 2006; Yang, 2009). It posits that e-blogging and online discussion can promote reflection through both individual and collective inquiry. However, unlike some of this research (Yang, 2009; Zenaida Aguirre-Munoz, Fox and Nuanez-Lucas, 2010), which tended to observe interaction and the development of participant postings without intervention, this study presents how an online facilitator can exploit the medium of electronic communications to build an online community of practice (see Brooke, 2012c) and then construct and use a reflective practice structure to stimulate and actively motivate the development of reflective practice in inexperienced reflectors (see Brooke, 2012b). It is therefore believed that the empirical evidence of the impact of the practical strategies applied in this study will be a useful contribution to this evolving field. It might also be a precursor to more detailed research on using reflective tools that have thus far been used in paper journaling.

6.6. Evaluation of the originality of the work.

Erlandson *et al.* (1993) posit that all research is defined by its specific contextual features. This is particularly true for qualitative action research, and it is one major source for the originality of this work. A great deal of data has been offered about this research context, in particular, the role of English in Hong Kong; the state school system; the role of the Institute of Education in Hong Kong; this researcher's role at the Institute, and his positionality for the research. The voices of the trainees have been heard also. It is hoped that readers will gain insights into the teacher training system in this context from the study. In this way, the research seeks to offer a slice of life.

The positionality of this researcher was a major element ranging from online moderator to teacher educator through to classroom practice supervisor and assessor, and this adds to the originality of the work. The predominant focus which bound these roles into one principal role was as a guide to genuinely help trainees in their development as language teachers. It is hoped that this characteristic of the research helps to demonstrate some originality also, as it is not

always clear that research is truly attempting to benefit the people being researched. One outcome is that trainees' voices will be heard and their situations better understood through the presentation of their life worlds through their reflections and their feedback.

Another characteristic that makes this work original is the way that an 'audit trail' in the form of a detailed diagram is provided to offer a clear step-by-step presentation of the research process (see figure four). Further, research notes and personal writings were compiled and at times shared throughout. The research notes contained descriptions and analyses of the observations of the interactions online and content of the postings; the personal writings contained researcher feelings about how the research was developing. This, it is hoped, demonstrates the originality of the research process, in particular how an initial idea (see figure three) is expanded upon to become a detailed, complex process (see figure four).

In addition, both models developed 'the model for developing online awareness' and the 'model for developing reflective practice online' are unique constructions stemming from this research. Throughout the thesis period and the wide reading conducted, this researcher has not seen models resembling these in any way. In fact, models of reflection tend not to combine several frameworks or taxonomies, as this has done (Argyris and Schön, 1978; Daloglu, 2002; Valli, 1993). Instead, they link or combine notions such as 'experience', 'reflection' and 'outcome' or questions or stages. Being part of a teacher training program, it was felt more fitting to link the concepts with their authors so that participants could then further read from the works of these trainers themselves as part of their deliberative reflection tasks. Finally, the research was linked to, but manipulated, an existing, ever-evolving body of knowledge (see Simonsen, Luebeck & Bicean, 2009; Yang, 2009) that applies data content analysis methods from similar well-established teacher education studies (in particular those from Ho and Richards, 1993; and Shulman, 1987). These methods were adjusted to accommodate the participants for this research, thus, extending them. This it is hoped, might stand as a model to like-minded researchers in this field and encourage further manipulation and extension of these. It is believed that the more challenged the established models are, the more effective they become.

6.7. Personal reflections on the work.

It is probable that I am now a more capable action researcher in the field of developing pre-service teacher trainee reflective practice through the experiential knowledge constructed enabling me to better observe and analyze the outcomes of my practice. This critical awareness has led to a better self-understanding as researcher and practitioner. As a result, the understanding that there are two quintessential components to effective action research has been reached. The first is to be continuously aware of what the data is communicating to you. It is important to act on feedback from trainee participants and observations of online activity. The analyses of these data can cause significant changes in practice leading to research developments. These are then further analyzed and lead to another spiral of change. If the data is not responded to in this continual way, it is possible that the project will meet difficulties. The second element is praxis or the ability to apply theoretical understandings to one's research observations. This thesis is one that reveals how through deliberative reflection, a researcher may construct knowledge in a particular field to develop his practices. I now have a much greater understanding of reflective questioning mechanisms and how these can be used for scaffolding reflective practice in teacher training. I now also believe that there is a better understanding of how effective learning can occur online when trainees are virtually connected, and able to share their reflections and discuss issues collaboratively. In sum, it is beneficial to conduct self-directed reading which is inextricably linked to trial and error practice. By doing this, it is possible to build a repertoire of skills and strategies to improve a particular situation.

6.8. Limitations of the research.

As with any action research project, there are limitations. The field experience block practice periods occurred over eight weeks only, giving a very limited period of time for the research to take place. In addition, only three case studies were conducted. It is evident that by conducting more case studies over a much longer time frame, the double loop learning graphic might have been more effectively scaffolded. This was the ultimate aim and thus is the main limitation to the research.

6.9. Future developments and further areas for research.

As demonstrated through the quantitative results, ‘life logistics’ was substantially the predominant theme of discussion as was predicted. However, other themes were discussed and ‘self-awareness and self-evaluation’ was an important aspect of the trainees’ postings. If ‘self-awareness and self-evaluation’ was a significant product of this research, a number of posts applying the single loop learning cycle (Argyris and Schön, 1978) were uploaded, which means that action research cycles were being conducted and shared. By conducting their personal action research cycles, trainees were learning about themselves and their practices, noticing errors and skills in their work, trying out new strategies or working on strategies already part of their expanding repertoire. They were also able to share this learning and their experiences online and learn from each other. In addition, all trainees applied Valli’s (1993) notion of deliberative reflection to their experiences. They were thus engaged in locating relevant literature in the field from expert practitioners and these readings may have given them further information to reflect on, and aided in opening them up to broader issues concerning educative practices.

Boulton and Hramiak (2012) report that out of thirty two trainees, twenty five of the blogs contained reflection moving beyond the descriptive to the analytical by reflecting on practice. In accordance with this research, these posts from Boulton and Hramiak’s (2012) work pertained to the final stage of the single loop learning cycle. These authors also mention that some trainees were not only able to appraise their own performances by linking theory to practice, but also to critically analyze the educational system in schools. Unfortunately, they do not give a figure as to the number of trainees who discussed broader (ethical, social or political) issues. The two percent figure belonging to ‘discussing broader issues in education’ from this research, demonstrates that a longer period of research time is required in order to build on the model constructed and further it. It might be beneficial to try out the model with older, more experienced trainees or in-service teachers. I believe that the double loop learning requires more systematic, hands-on training than offered for this research.

First, future research might be more focused on Socratic dialogue that could tease out threads to guide deep reflections, and embedded dialogues could be bolstered with hyperlinks to readings or other media, perhaps even videos of trainees or trainers teaching. This might be one area that

could be expanded upon to scaffold abstract reconceptualization (generalizations leading to new paradigms and understandings) and lead to deeper learning. In addition, I propose to further Walker et al's (2004) study by building a bank of useful language to conduct the moves. At present, for the 'Discount categories', there is a list of communicative functions on the left and their descriptions on the right. However, there is no list of the actual language used to make these moves. Thus, I believe that it would be a useful resource for researcher practitioners, particularly novice trainers, or English language learners, who might not be particularly aware of the language required to perform these functions online.

Second, it is this researcher's objective to consider implementing a form of blended learning for the double loop learning cycle because realizing notions such as a 'paradigm shift' might be better facilitated in face-to-face conferencing while tutor and trainees read reflections on single loop learning cycles posted online. In this way, the input could be more extensive. One disadvantage of the written feedback offered online to trainees is that this is more time consuming and therefore, there tends to be less content and input than there might be at a face-to-face conference.

Finally, future research using a microphone might afford reflections 'in-action'. A trainer could be linked up to a trainee in class teaching. The trainer could ask questions about events in the trainee's classroom in real time. The reverse might also be interesting: a trainer linked to novice trainees in real time who may ask questions as the trainer is conducting a lesson. Either way, these dialogues could focus on scaffolding the trainee's reflections as they receive input from and become more aware of the tacit knowledge and connected schemas of the experienced trainer through spontaneous hands-on reflection. These dialogues could be recorded along with a video of the lesson, and used for retrospective 'reflection-on-action' after the event. This would then be explored for further reflections and discussions with the ultimate objection of following through to the double loop learning cycle for deeper learning to occur.

6.10. Final reflections.

It is clear that this research has had an impact, albeit in a contextually limited way, on these trainees' lives. The majority of the participants were able to conduct action research successfully

and to learn about their emerging practice. It has also had an impact on this researcher's life. As a result, personal and perhaps collaborative work in this field will remain of paramount importance to me. There is a strong case for this in training pre-service teachers who are conducting practicum in schools. In my opinion, the more support there is, the better the training program. The more reflective teachers are about their practice, the better teachers they can become. The more peer and tutor collaboration there is, the deeper and wiser the reflections constructed. This is enhanced further by asynchronicity online as careful consideration can be applied to one's postings so that meanings can be conveyed clearly and fully. My only fear for this type of research is that it may continue to be marginalized because of the top-down constraints weighing on trainees during field experience. However, the significance of this research is that it offers a counterbalance of personal and professional knowing to make such constraints more bearable and solutions to them more productive.

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Appendix 1

Teacher-learner reflection topics applying Daloglu's (2001: 92) taxonomy

Category 1: What I already knew but benefited from observing.

Topic
Importance of lesson planning
Various classroom management techniques
How teachers can learn about teaching from students
Moving between stages of a lesson
Importance of effective communication with students
How teachers' behavior and attitude influence students
Ways of encouraging student participation
How choice of subject matter influences students' involvement in the lesson
How teachers' flexibility can contribute to the lesson
How harsh error correction can demotivate students

Category 2: What I did not know but learnt from my classroom observations.

Topic
How to integrate students' lives in the lessons
Techniques of representation for reading lessons
Differences between real classrooms and theory learnt in teacher preparation courses
How classroom management techniques influence lesson flow
Drawbacks of over reliance on the textbooks
Effectiveness of classroom games
How student participation is dependent on factors such as the time of the day and interest value of the topic
How positive feedback encourages student participant
Importance of appropriate timing in a lesson
How to cooperate with students in a lesson
Importance of lesson preparation

Category 3: What I would like to implement in my own teaching.

Topic
Timing the lesson appropriately
Being confident in the classroom
Using a variety of teaching techniques
Designing interesting materials to arouse the interest of students
Meeting the specific needs of individual students

Using games in the lessons
Using classroom management techniques to prevent disruptive behavior (establishing code of conduct)
Being flexible if the lesson plan fails
Encouraging peer and self-correction
Using pictures and other audio-visual aids
Using group and pair work to encourage student participation
Using the board effectively
Using meaning-based rather than mechanical activities that provide structure practice
Basing lessons on students' lives to encourage participation
Keeping theory in mind when designing lessons

Category 4: My comments on and reactions to the practicum experience.

Topic
I'm rather disappointed not to see what I learnt in university in real classrooms
Being present in a real classroom was very useful
This experience has been an effective use of my time
Feeling close to the end of being a student was a great feeling
This experience made me realise how much more I have to learn
I have not observed much real teaching and therefore feel I've wasted my time
Teaching is fun and a satisfying job
The amount of native language used in the classroom was surprising
Teachers need to be equipped with appropriate classroom strategies to keep classes under control and to avoid disasters
Teaching is more demanding than I expected
In 2 weeks I learnt more than I learnt in university in 4 years

Appendix 2

End of block practice questionnaire

Thank you all so much for using Blackboard so much over the block practice period. I hope it has proven useful 😊

I will no doubt be doing the same for another cohort next semester. To help me to further improve the support I have been offering, please could you respond to the following questions explaining your answer. Please type out your answers and then pop this into my pigeon hole so that this is completely anonymous.

- Did you find the socializing activities helped you to get to know each other?
- Did you find the structure to develop reflective practice using Daloglu, Valli and Argyris and Schön useful?
- Did you find asynchronous communication beneficial for reflection?
- Overall, did you find the site helped to develop your reflective practice?
- Anything else you would like to add?

Appendix 3

An example suite of messages from one thread of the online forum collected by subject

Posting 1.

Subject: Lesson planning

Author: Jane

[Next Post](#)

Creation date: Saturday, March 21, 2009 3:05:05 PM CST

I wonder whether it is necessary for teachers to write lesson plans for EVERY SINGLE lesson. I know that it is helpful to spend time preparing learning materials for students and to plan beforehand the objectives and structure of lessons. Yet, is it a must to put down detailed steps and the time each step takes in a lesson plan? Are there any alternative ways to plan lessons more effectively? We learn from the Secondary English Curriculum module that different versions of handouts/worksheets should be given to students of different proficiency levels in order to cater for individual differences. I wonder, will this lead to stereotyping or labeling effects in an actual classroom? Can't think of anything more at the moment... i will keep you updated asap

Posting 2.

Subject: Lesson planning

Author: Michelle

Creation date: Sunday, March 22, 2009 4:00:04 PM CST

I would like to give some comments. I think as a start we should try to write lesson plans for every single lesson, but as we move on with more experiences, then we can do the job better. And we do not have to write lesson plans for every lesson. And as for the worksheets and the labeling effect. To some extent, there will be labeling effect, even if we use some symbols instead of numbers, the students themselves will know. However, considering the fact that those worksheets can help and cater for learners' differences, I think it is still worth it to make different worksheets. Mentee B.

Posting 3.

Subject: Lesson planning

[Reply](#) [Modify](#) [Remove](#)

Author: [John](#)

Creation date: Sunday, March 22, 2009 4:41:31 PM CST

I don't think for teachers who are already overwhelmed with their overloading work, writing lesson plans for every single lesson is necessary. However, it is important for us --- student teachers --- to write enough lesson plans, so that we can learn to carefully plan what to do in a lesson, see whether it works out and reflect on how to improve it for the next time. I guess this is just a process every teacher has to go through. Once we feel that we don't need to write it anymore, we don't have to write it. But I guess it would still be good for experienced teacher to write some lesson plans from time to time for lesson improvements. Would it be good if we just distribute two worksheets --- the one at a higher level and the one with more scaffolds --- to all the students? We can ask them to choose for themselves. If they are confident about what they learnt, they can challenge themselves with the more difficult one. If they feel the need of more scaffolds, nobody would know they are using the easier worksheet.

Posting 4.

Subject: Lesson planning

[Reply](#) [Modify](#) [Remove](#)

Author: [Ken](#)

Creation date: Sunday, March 22, 2009 5:29:58 PM CST

For the lesson plan, I wonder if we could write a unit plan. I mean, if we know we are spending how many lessons on one topic or a task, could we just write a unit plan for that rather than a series of detailed lesson plans. Still I will write about the approximate time spent on each part of the activities in one lesson, if there is any. This is to make sure I will use the class time most efficiently.

For catering for diversity... I remember I watched a video in the Diversity lesson. It was about a Maths lesson. I think the design of the worksheet was good. There were different levels of difficulties already. The students could choose how much they wanted to do, according to their own ability. Then, no other students would know about the levels of other students.

Posting 5.

Subject: Lesson planning

[Reply](#) [Modify](#) [Remove](#)

Author: [Theresa](#)

Creation date: Monday, March 23, 2009 4:57:42 PM CST

I think as novice teachers like us, we'd better plan things in details as a departure point. Otherwise, I am afraid we might get lost sometimes and the organization of the lesson is not logical. Yet as John said, as we have our teaching experience accumulated, we might be able to handle things better and thus general lesson plans or unit plans will be enough. But, at this stage, I think probably it is better for us to plan things in details. Regarding the diversity concerns in classroom, I don't think it is good to design two sets of worksheets and assign them to students. Firstly, by doing so, we do not only label our students but also deprive them of their learning opportunities. Things are changing, so are our students. They will make improvement throughout the learning process. Assigning them a certain set of worksheet indirectly negate the possibility that those tentatively lower level students can make improvement. Secondly, the power of teachers' prophecy: students, to a very great extent, fulfill teachers' expectations. If you expect them to be weaker by giving them the different worksheets, they will surely become weaker. So what I suggest is that in the same worksheet, we design tasks of different levels. Probably the first two parts are compulsory for everyone, the last part we make it as a bonus. Whether students are willing to finish it or not is entirely up to them. I think that is better. On one hand, our students feel control of their study. They can make choice of doing it or not. On the other hand, we avoid the negative effect of self-prophecy.

Posting 6.

Subject: Lesson planning		Reply Modify Remove
Author: Jane		Next Post
Creation date: Monday, March 23, 2009 6:57:15 PM CST		
<p>Thanks everyone for your advice. I asked the same questions to my former class teacher during matriculation in my old secondary school last year during School Attachment. She gave more or less the same suggestions as some of you suggested here as well.</p> <p>For novice student teachers like us, we should prepare our lessons as detailed as we can. This includes all the teaching and learning materials and in what ways will you teach your kids in the classroom. We should also think of questions that students might ask during or after the lesson. I learnt this when I went to Nanjing Normal university last year representing our Institute as a student ambassador. Student teachers there needed to write down at least 30 questions that they think students might ask during lesson in their lesson plans. And perhaps you will be more surprised because there are usually more than 30 pages for each lesson plan and they need to be hand-written!!</p> <p>She also recalled when she was a student-teacher she used to rehearse her planned lessons for several times in front of the mirror before stepping into the actual classroom the next day. I think it is a very good practice for us because we can familiarize ourselves with the structure of lessons and discover/reflect if there are any mistakes made in our speech during the rehearsal. It is thus by going through all these 'procedures' that we can build up confidence for our future teaching. My old teacher has been teaching for more than 15 years now and she prepares something similar to a unit plan when preparing for lessons.</p>		

Posting 7.

Subject: lesson planning		Reply Modify Remove
Author: Michelle		Previous Post Next Post
Creation date: Tuesday, March 24, 2009 9:24:36 AM CST		
<p>wow Jane! Thank you so much for giving us so many useful and important suggestions. When you reminded me, I remembered what my old teacher said. She rehearsed what she was gonna teach before she taught even she has been teaching for a couple of years. Haha! I think before we begin our co-teaching, we gotta find some time to rehearse together a bit. What do you think? And we can learn from each other as well.</p> <p>I think the practice that Nanjing Normal University has is useful to some point. If we can prepare how we are going to answer some "potential" questions, we can manage the class better and students might be able to learn more. Yet, i think teaching at the same time is an improvised art. For some questions, you can just never expect. For every lesson, if you gotta write a lesson plan for 30 pages, i think that's a bit too crazy. I think all the time we have will be merely spent on planning the lesson. It is a bit overdone. Anyway, good preparation and frequent exchanges of ideas and experience of teaching are necessary. jane let's make a good lesson together!</p>		

Posting 8.

Subject: RE: Lesson planning	Reply Modify Remove
Author: Angel	Previous Post Next Post
Creation date: Wednesday, March 25, 2009 5:10:51 PM CST	
<p>I agree with John that we, student teachers, should write lesson plans in the preliminary stage of our teaching. Every time we revise our lesson plans based on our accumulated experience, we are making progress. However, as for the concerns about the time we'll spend on writing lesson plans and the flexibility in the classroom, i personally think that we can view these as a learning experience. Try to adopt one way and adapt your teaching style later based on your experience and the class situation. It's really difficult to find a perfect or even suitable way of teaching in the beginning stage, but just hope we will keep trying when facing difficulties...</p>	

Appendix 4

An example suite of messages from one thread of the online forum collected by date

1. Thread: Scarlet's Critical Incident

Post: Scarlet's Critical Incident

Posted Date: February 25, 2010 6:25 PM. Status: Published

I met with a critical incident when I was observing an English class at a secondary school in England. There was a boy kept being loud and noisy in the class. Whenever the teacher asked students to do some tasks, he became very excited and screamed like a little animal! He also turned around to chat with other boys sitting behind him. The teacher called his name several times but it didn't work at all. What was worse, some boys were sort of influenced by the boy and they all started laughing and screaming. Eventually the teacher lost her temper and asked the boy to leave the classroom. I think this kind of matter happens quite frequently in a classroom. And they are difficult to handle because if the students are really naughty, there seems nothing for the teacher to do. Also I'm not sure if asking students to leave the classroom is a good idea.

2. Thread: Critical incidents by Lynn

Post: Critical incidents by Lynn

Posted Date: February 25, 2010 10:21 PM. Status: Published

For me, the critical incident I've met is about one of the students I have taught as a private tutor. I have been teaching the student for more than three months already. She is very obedient in class. She has never asked me about anything and followed every single exercise I asked her to finish. She is really good at dictation. Nevertheless, she has never passed the summative English examination of the school, not even once. She works pretty hard on English learning but her marks are always around 50, which is not good enough. When I questioned about her scores and asked her if she has any questions, she just keeps crying. I think she is lack of confidence in English learning. She is trying to avoid every chance to communicate with others in English.

3. Thread: Scarlet's Critical Incident

Post: RE: Scarlet's Critical Incident

Posted Date: February 25, 2010 10:24 PM. Status: Published

I believe that the boy you mentioned above is too eager to get other people's attention. Maybe the reason is that he has low self-esteem and he wants others to appreciate him. I think that the teacher should give more encouragement.

4. Thread: Scarlet's Critical Incident

Post: RE: Scarlet's Critical Incident

Posted Date: February 26, 2010 11:41 PM. Status: Published

Yeah maybe that boy has low self-esteem. But how can we deal with the issue in that situation? What should the teacher do to keep the lesson going while not hurting the boy's feelings?

5. Thread: Critical incidents by Lynn

Post: RE: Critical incidents by Lynn

Posted Date: February 26, 2010 11:53 PM. Status: Published

As you are teaching her as a private tutor, you can try some interesting games to motivate her. I had a girl who couldn't understand Mandarin at all. So every lesson I gave her different activities to do (singing, drawing, even watching Mandarin animation movies). During the activities, she was allowed to use Cantonese if she didn't understand or couldn't express herself in Mandarin. The effect is pretty obvious. Now she can not only understand me, but also speak complete sentences in Mandarin. I guess the most important thing is to immerse the student in an entertaining learning environment and to encourage her as much as possible.

Scarlet

6. Thread: Candy's critical incident
Post: Candy's critical incident

Posted Date: February 27, 2010 4:09 PM. Status: Published

Candy's critical incident

When I observed an English class during my School Visit last year, I was shocked when I witnessed two boys fought suddenly. At first, they quarreled for something. Later I knew, one boy tore another boy's textbook by accident, which makes the owner very angry. Also, the boy who made that mistake felt bored as textbook owner kept blaming him. Finally, both of them lost control and started fighting. The female teacher was extremely frustrated and the only thing she could do is to shout at those two boys. With great effort, the teacher separated them and stopped that fight. If you were the teacher, what will you do to solve this unexpected critical incident?

7. Thread: Critical incidents by Lynn
Post: RE: Critical incidents by Lynn

Posted Date: February 27, 2010 4:18 PM. Status: Published

Since the student has made great effort after class, I think the problem may be something about in-class learning. Maybe she has difficulties concentrating her attention to teachers' instruction, the learning materials selected by teacher are too difficult or, as you mentioned, she lacks confidence on English learning and thus is afraid of any English exams.

Candy

8. Thread: Scarlet's Critical Incident
Post: RE: Scarlet's Critical Incident

Posted Date: February 27, 2010 5:12 PM. Status: Published

I think first of all, the teacher should keep calm and don't deal with this students violently or emotionally. The teacher might try to ask the boy to do some interesting work or answer some simple questions related to the lesson, just to satisfy his need of getting attention. If the boy does

not listen, then the teacher needs to talk with him after class and help him realize the bad consequence of his behavior.

9. Thread: A critical incident by Jennifer

Post: A critical incident by Jennifer

Posted Date: February 27, 2010 5:23 PM. Status: Published

My critical incident's the first English lesson I observed in a Hong Kong secondary school. I was really surprised by the boring and demotivating classroom atmosphere. The teacher simply analyzed the text in the textbook and then asked students to do exercises. As students were quite bored with the lesson, there were quite a lot of discipline problems and the teacher had to shout at students for a number of times. At the end of the lesson, the teacher gave students lots of homework and also asked students to prepare for the dictation for the next lesson. Actually the teacher knew that her lesson was boring when she talked with me, but she said she had to do so because the students she taught needed to take HKCEE and she had to prepare them by using the more traditional teaching style. What do you think?

10. Thread: Candy's critical incident

Post: RE: Candy's critical incident

Posted Date: February 27, 2010 5:30 PM. Status: Published

I think the first step is to separate the two students and make them calm down. Then the teacher can talk with each student, ask him to explain the reason for this incident and help him to use a better approach to solve this kind of problem. The teacher needs to be patient and kind when he/she talks with each student, and tries to help him rather than blame what he has done.

11. Thread: Scarlet's Critical Incident

Post: RE: Scarlet's Critical Incident

Posted Date: February 27, 2010 5:30 PM. Status: Published

In my view, the first thing teachers can do it to identify why the boy can't concentrate on the class and always make noise. I think this is the first also the hardest setup.

Then, you can reinforce the importance of keep classroom discipline by announcing class rules at the beginning of the class. Also, you can make your learning materials more interesting to attract the students' interest.

12. Thread: Scarlet's Critical Incident

Post: RE: Scarlet's Critical Incident

Posted Date: February 27, 2010 6:35 PM. Status: Published

This is also the one thing that worries me most as a teacher. I have seen my supporting teacher lose her temper and shouting at her students in class all the time, like one third of her class time that is not efficient teaching, and I will not take it into my own class in my BP. Maybe you can try to calm down the students by occupying him with something attractive, so he can be quiet in the class. I do not think asking the student to stand out of the class is a good way to deal with the situation, but you may not really have a second choice if you do not want other students to be influenced further. There is also another possibility that this student may have hyperactivity and needs special care

13. Thread: Critical incidents by Lynn

Post: RE: Critical incidents by Lynn

Posted Date: February 27, 2010 6:48 PM. Status: Published

I think a case like this may not be uncommon when we become teachers and teach so many students with various learning abilities. Actually I have heard your concern about her for many times, and you are really worried, aren't you. I would be so, too. I am not familiar with this student, but I guess she is not confident in herself enough to speak up with other people. I doubt if she talks in Cantonese with her classmates often at school. Some girls are like this, too shy to speak, too afraid of making mistakes and being laughed at. But I suggest that you may talk to her in Cantonese first at the beginning of very session to ease the intensity she feels. Then you start with a little English, and more each time. But also let her know that mistakes only help her become better, so do not be afraid of them.

14. Thread: a critical incident by Tracy
Post: a critical incident by Tracy

Posted Date: February 27, 2010 7:26 PM. Status: Published

This critical incident I am going to talk about once made me think that being a teacher in secondary school was the last thing I would do. My Chinese teacher at that time was a newly graduate young man, very kind and had very soft personalities. I did not recall any moment when he scolded any of my classmates however bad they behaved in class, and we all doubted whether he had any temper at all. Anyway, it was his softness that made him a perfect target for those rebellious teenagers in my class. So they called him name in class, made joke of him, and deliberately ignored his instructions in class. He was never really angry at them, maybe he was inside, but none of us could tell. But one time, they really crossed the line. My classmates stole his SIM card and looked through all his personal messages and gossiped about it. I was not sure whether he knew about it for he acted like nothing had happened. Think ahead, I think we all face with the same problem. Students like to take advantage of a newly graduate, inexperienced, and most probably, very kind teacher. I learnt that from some of my local classmates that being an intern teacher is really a tough experience, and so are the first few years of teaching. Considering about how to position ourselves at the beginning of our teaching is critical for being a good teacher.

15. Thread: Scarlet's Critical Incident
Post: RE: Scarlet's Critical Incident

Author: Mark BROOKE. Posted Date: February 28, 2010 1:52 PM

Status: Published

I think that you all bring up good ideas for this problem. A student like this can change whole class harmony because other students often find it funny if one of their peers is trying to undermine your authority. One thing is clear when dealing with this - you cannot just ask a student to leave the classroom unless he/ she is going to see the head teacher or another teacher of higher authority than your own. The other thing that is clear is that you cannot deal with this issue in front of the whole class. You need to meet after class to discuss the problem. If you

confront the student in class, and you shout in front of the other students, you will lose respect. It is difficult to cater for diversity in the classroom but what is needed is a variety of medias and materials, and a mix of activity types and learning paces. If you know you are doing your best concerning this, if you have tried to speak to the student and nothing changes, then you know that the problem is not going to go away so talking to your supporting teacher and perhaps the parents is what comes next. I hope you don't meet students like that but you need to be prepared. Have you read any books on classroom management? Using a team focus e.g., grammar and vocabulary quizzes is good as you soon find out that peers can keep a naughty student in check. Every time a student misbehaves, you take a point from their score. It is surprisingly effective.

16. Thread: Critical incidents by Lynn

Post: RE: Critical incidents by Lynn

Author: Mark BROOKE. Posted Date: February 28, 2010 1:56 PM

Status: Published

I find it strange that she cries when you try to talk to her. Have you asked her to write you a letter about it? I think you need to find out more about this before you can continue.

17. Thread: An Inspiring and Rewarding Moment of Teaching - Starry

Post: An Inspiring and Rewarding Moment of Teaching - Starry

Posted Date: February 28, 2010 2:08 PM. Status: Published

When I was in my first year of my university study, I was offered an opportunity to be an after-class English tour for a group of P.2-3 students in a local primary school in Sham Shui Po. They were all Newly Arrived children from the mainland and their English was comparatively poor. After teaching them for a couple of months, I felt a little bit frustrated because they did not make much improvement, and I also started to doubt if I could manage to keep my passion about being an English teacher. But one incident totally changed my attitude and it made me reaffirm my decision of being a professional teacher. It happened when we finished playing an English game and I asked the winner what he would like to have for a present. He thought for a while and asked me, "May I say it in Chinese?" At that time, I realized that I should not have asked the

student to choose his own present, because I definitely could not buy anything that he wanted; and I was also afraid that he might ask for something very expensive. To my surprise, he said the following in Chinese, "The present I want is that you allow me to ask you any English question at any time!" I was too delighted to hear this and I was almost crying. If he hadn't said this, I would not have noticed that I had motivated them to learn although they had not made much progress in English learning. Maybe that is exactly what teaching is aimed at.

18. Thread: Critical incidents by Lynn

Post: RE: Critical incidents by Lynn

Posted Date: February 28, 2010 2:14 PM. Status: Published

From your story, I guess your student must be under a great level of pressure. The reason behind her failing exams may be that she has been suffering too much from learning and has been using the wrong learning strategies. It is really hard to help her only as a part-time tutor. Have you tried to talk to her parents so far?

19. Thread: Scarlet's Critical Incident

Post: RE: Scarlet's Critical Incident

Posted Date: February 28, 2010 2:18 PM. Status: Published

Maybe we can ask the student to go out for a while, but definitely not for a whole lesson. Students with SEN are difficult to deal with. I think we need to work very closely with their parents and other supporting teachers in order to help these students learn better.

20. Thread: Candy's critical incident

Post: RE: Candy's critical incident

Author: Mark BROOKE. Posted Date: February 28, 2010 2:18 PM

Status: Published

Have you read any books on classroom management? With students who are quite extreme like this, you need to draw up a class contract at the beginning of the course stating how you expect students to behave e.g., no fighting; no shouting etc and also some promises of what you will do to make the lessons enjoyable e.g., every lesson play a game or students can bring in their

favorite English song or they can watch a part of a video they like etc. You can tell them they can get 5 minutes at the end of each lesson for this. If they break one of the rules, you warn them that the 5 minutes leisure at the end will not take place. If you want to you can add teacher rules up there too e.g., the teacher will always arrive on time etc. If any fighting takes place, the students need to go to the Principal or teacher in charge of discipline and the parents need to be told immediately. Anything that can be dangerous should not take place. I think this is quite rare in HK. In England, there might be more cases like this.

21. Thread: a critical incident by Tracy

Post: RE: a critical incident by Tracy

Author: Mark BROOKE

Posted Date: February 28, 2010 2:22 PM. Status: Published

No matter your experience or age, you need to make sure students are aware of the boundaries and the lines that can be crossed. Allowing students to get hold of your SIM card is pretty careless. The poor teacher must have been suffering a great deal knowing that that had taken place. Never leave personal things around, and if you do, use a brief case that is locked securely or put things in one of the lockable drawers you have at the teacher's desk

22. Thread: A critical incident by Jennifer

Post: RE: A critical incident by Jennifer

Author: Mark BROOKE

Posted Date: February 28, 2010 2:28 PM. Status: Published

A grammar quiz can be made fun so can a dictation. One kind of dictation is a walking dictation. You put several copies of a text on the walls and you ask 2 students from each group of 5 to walk to the text, read it, return to their group mates and dictate what is written to them. The students who have the pen and paper cannot go to the wall. The students who go to the wall cannot write on the paper. This is fun and very challenging.

23. Thread: Candy's critical incident
Post: RE: Candy's critical incident

Posted Date: February 28, 2010 2:29 PM. Status: Published

To be honest, I really do not expect any fighting in my classroom. However, if unfortunately my students are fighting, the first thing that I will do is to separate them. And after the class, I will talk to them separately and help them clarify the misunderstandings.

24. Thread: A critical incident by Jennifer
Post: RE: A critical incident by Jennifer

Posted Date: February 28, 2010 2:31 PM. Status: Published

There are a number of ways to teach students grammar, vocabulary, text structures... The traditional way is just convenient to the teachers, and saves them time to think and to teach. But it is definitely not a good way for our students.

25. Thread: An Inspiring and Rewarding Moment of Teaching - Starry
Post: RE: An Inspiring and Rewarding Moment of Teaching - Starry

Author: Mark BROOKE

Posted Date: February 28, 2010 2:32 PM. Status: Published

It is very nice to read about a positive critical incident and one that shows that humanism is the real key to teaching. If you can reveal yourself to be someone who students can look up to and learn from then, as you say, you have touched the very heart of what it means to be a teacher, and what it means to be a student. Great!

26. Thread: a critical incident by Tracy
Post: RE: a critical incident by Tracy

Posted Date: February 28, 2010 2:36 PM. Status: Published

I totally agree with you and that's what I have been thinking about all these days. As an intern teacher, I think I will try to be as firm and tough as I could be at the very beginning. Apart from that, I will also make sure that I get my every lesson well-prepared. I have to show them that I

am their teacher and I deserve their respect because I am responsible for my teaching and their learning.

27. Thread: A critical incident by Jennifer

Post: RE: A critical incident by Jennifer

Posted Date: February 28, 2010 4:03 PM. Status: Published

If I were a student, I don't want to have to such kind of lesson neither because it's really boring and hard to concentrate. The traditional model that adopted in the lesson is only suitable for the toppest group of students. And for the majority class, they were not doing effective learning at all. For them, they were still badly prepared for the exam. So exam is not an excuse for a boring class.

28. Thread: Critical incidents by Lynn

Post: RE: Critical incidents by Lynn

Posted Date: February 28, 2010 5:04 PM. Status: Published

I guess the reason why she cried when you were trying to talk to her was that that she felt really sad about the score and she blamed herself very much. She was so afraid of you having negative views about her or starting to scold her that she cried before you said anything. Maybe you can take a look at her exam papers and attempt to find out the reason why she could not score in examinations. It could be that she was very scared of exams, she cannot finish answering the exam in time, or she is lack of certain skills to deal with exams.

29. Thread: Stacy's critical incident

Post: Stacy's critical incident

Posted Date: February 28, 2010 5:07 PM. Status: Published

I used to teach a group of form 4 students. At the beginning, i asked them what kind of knowledge they wanted to learn the most. Surprisingly, most of them mentioned grammar and every few of them said speaking skills. Thus I focused my teaching on grammar. To make grammar study more interesting and student-centered, I tried some activities, such as jigsaw

reading. More precisely, I divided students into two groups which were signed with different grammar content and they were asked to do a group presentation afterwards. However, students could not get full understanding of the content although I thought students were provided with plenty of materials. Ever worse, when one group of students was doing a presentation, the other students did not listen at all. In the end, students commented on the activity that they have learnt nothing from those lessons. I was quite frustrated and realized that students only wanted to listen to the teacher and study by following clear guidelines from me. Otherwise, they would regard it as a waste of time. So i gave up activities that encouraged self-learning and most of the time used spoon-feeding model in the class. From then on, students did not complain anymore. But they were always very sleepy and felt bored on the class.

30. Thread: Scarlet's Critical Incident

Post: RE: Scarlet's Critical Incident

Posted Date: February 28, 2010 5:19 PM. Status: Published

Yeah maybe we can have a supporting teacher in the classroom to help him. I have seen this in the English schools. They have one teacher sitting next to the SEN student to help him or her throughout the class. Or maybe group all the SEN students to give them additional tutorials?

31. Thread: Scarlet's Critical Incident

Post: RE: Scarlet's Critical Incident

Posted Date: February 28, 2010 5:29 PM. Status: Published

Yeah I really like the last point. I saw one school doing this kind of things in England. They gave each student a credit record sheet. In each lesson, if the student behaves well (i.e., answers the teacher's question, help others in the task...) they get credits. Then the school counts the credits after one week. Students get prizes if they score high. But I think this strategy needs cooperation and communication between all the teachers because sometimes it's hard to ensure the fairness of giving credits as it really depends on the teacher.

32. Thread: Stacy's critical incident

Posted Date: February 28, 2010 5:44 PM. Status: Published

I guess these students are too used to the traditional spoon-feeding way of teaching and learning. Don't be frustrated though. I think it's quite possible that we meet similar problems during our Block Practice. Maybe you can give them a small test or ask them to do some grammar exercise after your activities so that they feel they've made some progress. After all, the most important thing is the outcome of teaching and learning (students actually learn something) rather than how you teach.

33. Thread: stay's critical incident

Post: RE: stay's critical incident

Author: Mark BROOKE

Posted Date: February 28, 2010 6:12 PM. Status: Published

You will probably face the same thing when you teach. Students are very used to formal grammar lessons. As already mentioned, the best thing is to be straight with them and to tell them what they are supposed to be learning. You need to explain to them that grammar is good for accuracy but that they also need to develop their fluency e.g., speaking tasks and more creative writing tasks. Once you explain yourself and your objectives for your teaching, they can understand you better and see a point to all the work.

34. Thread: Candy's critical incident

Post: RE: Candy's critical incident

Posted Date: March 1, 2010 1:24 AM. Status: Published

Shouting at the students, with no doubt, is not an effective way to ask them to keep quiet. It is suggested that the teacher could stand in front of them and let them know that she had noticed that. In fact, the students were not supposed to talk or even quarrel in class. The students could quarrel in class freely reveals that the teacher could not manage class discipline well.

35. Thread: Candy's critical incident
Post: RE: Candy's critical incident

Posted Date: March 1, 2010 8:13 AM. Status: Published

I think I am going to stop them at once and then change their seats. If they continue to sit together it is very easy for them to fight again. They need to be separated and try to figure things out after class.

36. Thread: Stacy's critical incident
Post: RE: Stacy's critical incident

Posted Date: March 1, 2010 1:07 PM. Status: Published

I have the same experience with you. Grammar and vocabulary is really the most difficult thing to teach in HK. I used to try to teach them creatively like what you did, but it didn't work. I think it's because that Asian students are more used to an up-down approach rather than bottom-up. So they always refuse to think and summarize the answer by themselves. They expect you to tell them everything so that they can write down and remember everything on their notebook. Therefore, I give up my creative teaching and try to explain everything clearly. It worked. By the way, jigsaw reading is actually very boring to me!! People always think it is fun~~~ I just don't know why~~

37. Thread: Candy's critical incident
Post: RE: Candy's critical incident

Posted Date: March 1, 2010 1:15 PM. Status: Published

I have never seen students fighting in class, but it must be very unpleasant or even stressful experience. One thing I will do immediately is to separate the students, not by shouting because that makes you look upset and weak. I will just be silent and stand for some minutes, let the students know that I am watching them and I am angry about what they are doing. If they do not stop, I will go ahead and get them separated. Then I will let them know they are going to bear the consequences of their behavior and I will talk to them after class. Knowing about the causes of the fight is very important. The teacher can tell students to right way how to deal with such

incident next time. And I will talk to the whole class, not only to these two students about this afterwards.

38. Thread: A critical incident by Jennifer

Post: RE: A critical incident by Jennifer

Posted Date: March 1, 2010 12:53 PM. Status: Published

I think you should first consider the level of students and the purpose of that lesson. If that the teacher is really boring but the teaching content correspondent with the teaching objective and leaner's level, it is a suitable lesson anyway - only small adjusting need to be made such as change the format of the dictation and give students more freedom in class.

39. Thread: a critical incident by Tracy

Post: RE: a critical incident by Tracy

Posted Date: March 1, 2010 12:59 PM. Status: Published

I think experience can change a lot. If you are a newly graduate teacher and you behave like a newly graduate teacher, of course they will try to challenge you. Nevertheless, if you are a newly graduate teacher but you behave like an experienced teacher, I believe they seldom dare to challenge you. You need more confidence and experience when standing inside the classroom.

40. Thread: A critical incident by Jennifer

Post: RE: A critical incident by Jennifer

Posted Date: March 1, 2010 1:24 PM. Status: Published

I agree with Starry's idea that the teacher is just being lazy to prepare the lesson in advance. There are many ways to conduct an interesting lesson and using different approaches to assess students' learning. There should be some specific exercises for students in order to get them prepared for the coming exam, but there should also be more time when students can enjoy their lessons and have more effective learning in class.

41. Thread: An Inspiring and Rewarding Moment of Teaching - Starry
Post: RE: An Inspiring and Rewarding Moment of Teaching - Starry

Posted Date: March 1, 2010 1:33 PM. Status: Published

I can see that you have already had some experience in teaching, good for you! It is always very motivating to hear something so positive from a student; especially you start to doubt yourself as a good teacher. I think this is a very good start, and I am sure you will be a great teacher ^^

42. Thread: Stacy's critical incident
Post: RE: Stacy's critical incident

Posted Date: March 1, 2010 1:44 PM. Status: Published

Do not give up what you have prepared for so easily. I think we should give some time to adjust to a new approach of teaching. Just think that they have been taught in the same way for 7, 8 years, and it is no way you can change that easily. Not every student is so willing to move out of their comfort zone and to accept new ideas of teaching, so I think you have to let them know that they have actually learnt from your teaching, and it helps them in a different way. Some students just want to get a higher grade rather than improve their language proficiency to a higher level.

43. Thread: Stacy's critical incident
Post: RE: Stacy's critical incident

Posted Date: March 1, 2010 4:30 PM. Status: Published

I think what you intended to do is quite right, because you really wanted students to be responsible for their own learning and got them actively engaged. As for suggestion, I think maybe you can give students some work to do while they are listening to their peers' presentation, e.g. gap-filling, answering related questions. That's how we can get students focused.

44. Thread: An Inspiring and Rewarding Moment of Teaching - Starry
Post: RE: An Inspiring and Rewarding Moment of Teaching - Starry

Posted Date: March 3, 2010 3:29 PM. Status: Published

As students need to be motivated to learn, we teachers also need to be motivated to teach and students' improvement or any positive feedback is the best motivation for us.

45. Thread: An Inspiring and Rewarding Moment of Teaching - Starry

Post: RE: An Inspiring and Rewarding Moment of Teaching - Starry

Posted Date: March 3, 2010 3:32 PM. Status: Published

Thank you for your comments. I believe that you must have some positive experience as well. Would you like to share some with me?

46. Thread: Candy's critical incident

Post: Summary of peers' opinions

Posted Date: March 3, 2010 11:04 PM. Status: Published

I really appreciate your attention and thoughtful points. Most of you mentioned that the first thing you will do is to separate the disturbing students and talk with them after class. I am in favor of this method as it protects students from being hurt and avoids wasting instructional time. In the later process of doing moral education, I agree that it's vital to understand the consequences of misbehavior and they need to take relative responsibilities like apologizing for their behavior in front of the whole class.

47. Thread: a critical incident by Tracy

Post: RE: a critical incident by Tracy

Posted Date: March 4, 2010 12:44 AM. Status: Published

I think as a teacher, we need to be firm but kind. We need to set clear classroom rules and never allow students to cross the bottom lines of those rules. However, that does not mean we need to be that harsh. I remember when I did the SA in a Hong Kong secondary local school, my supporting teacher told me that students actually quite like student teachers, and they might even be more friendly to you than to those experienced teachers.

48. Thread: A critical incident by Jennifer
Post: RE: A critical incident by Jennifer

Posted Date: March 4, 2010 12:13 PM. Status: Published

Thank you for everybody's ideas. I think as a prospective English teacher, we always need to bear our responsibility in mind and should try our best to motivate students' learning. We can try use various different teaching methods and resources, like storybook, games, Web quest, and so on. Otherwise, some students might feel boring and are not interested in learning, let alone coping with the exam.

49. Thread: a critical incident by Tracy
Post: RE: a critical incident by Tracy

Posted Date: March 4, 2010 1:40 PM. Status: Published

Well, it is good to know that student teacher is welcome in secondary school. Like you said, be well prepared and clear about the lines are important. Also confidence is much needed under such circumstances.

50. Thread: a critical incident by Tracy
Post: RE: a critical incident by Tracy

Posted Date: March 4, 2010 2:47 PM. Status: Published

Thank you for replying to my critical incidence and giving me constructive advices on it. Most of you mention that as a new teacher being clear about the lines or boundaries with students is crucial. However, keeping distance does not necessarily have to sacrifice our good relationship with students. Just keep in mind to keep out your own stuff safe in class. Another good point is that by preparing yourself well enough and try to act like an experience would make you a stronger teacher. In conclusion, know the lines, be prepared, and be confident would make things much easier for new teachers.

Appendix 5

Inter-rater reliability exercise 1

Please read through the following extracts and mark which category that they belong to.

The categories are:

- Life /Logistics (LL)
- Content Knowledge (CK)
- Discussing broader issues in education (DBIE)
- Discussing instructional approaches, teaching theories, methods and strategies used (DIA);
- Demonstrating self-awareness and self-evaluation (DSA);
- Asking questions about teaching and requests for advice from peers and the trainer (AQ).

“Jigsaw reading is a good way to interest the students to read. However, the point is that the content of the reading should be related to the topic of the unit, otherwise, it will become very loose and the students do not know what they are doing”.

“If you are a newly graduate teacher but you behave like an experienced teacher, I believe students seldom dare to challenge you.”

“Allowing students to get hold of your SIM card is pretty stupid. The poor teacher must have been suffering a great deal knowing that that had taken place.”

“With various resources, like storybook, games, Web quest, and so on lessons can be motivating. Otherwise, some students might feel boring and are not interested in learning, let alone coping with the exam”.

“In fact, the students were not supposed to talk or even quarrel in class. The students could quarrel in class freely reveals that the teacher could not manage class discipline well”.

“At the beginning of my lesson, the majority of the class was very silent and attentive. However, just after ten minutes, a few students started throwing chalk at one another at the back of the classroom while I was writing some notes on the blackboard”.

“Yeah maybe we can have a supporting teacher in the classroom to help him. I have seen this in the English schools. They have one teacher sitting next to the SEN student to help him or her throughout the class.”

“I think I should be more patient for the SEN kids but I do not think I can help these students learn better on my own.”

“Also I'm not sure if asking students to leave the classroom is a good idea... any thoughts?

“As a whole, apart from the subject knowledge, it is important for the teachers to teach moral values as well. Today we taught a short story about a teenager being caught in dilemma thinking about whether to sell drugs with his peers”.

Answers.

“Jigsaw reading is a good way to interest the students to read. However, the point is that the content of the reading should be related to the topic of the unit, otherwise, it will become very loose and the students do not know what they are doing”. (DIA)

“If you are a newly graduate teacher but you behave like an experienced teacher, I believe students seldom dare to challenge you”. (DSA)

“Allowing students to get hold of your SIM card is pretty stupid. The poor teacher must have been suffering a great deal knowing that that had taken place”. (L/L)

“We should try our best to motivate students' learning. With various resources, like storybook, games, Webquest, and so on. Otherwise, some students might feel boring and are not interested in learning, let alone coping with the exam”. (DSAs)

“In fact, the students were not supposed to talk or even quarrel in class. The students could quarrel in class freely reveals that the teacher could not manage class discipline well”. (LL)

“At the beginning of my lesson, the majority of the class was very silent and attentive. However, just after ten minutes, a few students started throwing chalk at one another at the back of the classroom while I was writing some notes on the blackboard”. (LL)

“Yeah maybe we can have a supporting teacher in the classroom to help him. I have seen this in the English schools. They have one teacher sitting next to the SEN student to help him or her throughout the class.” (LL)

“I think I should be more patient for the SEN kids but I do not think I can help these students learn better on my own”. (DSA)

Also I'm not sure if asking students to leave the classroom is a good idea... any thoughts (AQ)

“As a whole, apart from the subject knowledge, it is important for the teachers to teach moral values as well. Today we taught a short story about a teenager being caught in dilemma thinking about whether to sell drugs with his peers” (DBIE)

Appendix 6

Inter-rater reliability exercise 2

Please read through the following extracts and mark which category that they belong to.

The categories are:

1. No descriptive language (ND)
2. A simple, layperson description (S)
3. Events labeled with appropriate pedagogical terms or concepts (AP)
4. Explanations with traditional or personal preferences given as the rationale (TPP)
5. Explanation of an event using pedagogical principle(s) (PP)
6. Explanation with principle/theory and consideration of contextual factors such as student characteristics or community factors (PCF)
7. Explanation with consideration of ethical, moral or political issues (EMP)

“In this class, students’ social groups are generally formed along economic lines. Cooperative learning is especially useful in such situations because it provides repeated positive experiences with children from different backgrounds”.

“During the activities, she was allowed to use Cantonese if she didn't understand or couldn't express herself in English.”

“Ha ha ha ☺” .

“Cooperative learning is being used here because there is a split along economic lines in this community and we want students to accept and value each other in spite of these differences. Such values may contribute, in the long run, to saving this planet”.

“I have found that using reading groups is very useful for setting out of class tasks”.

“Interdependence in group work helps build a desire to help others learn; this sink-or-swim feeling keeps students committed to their own learning and that of their peers”.

“She used cooperative groups”.

“Without Chinese, some less able students might not get the meaning although you've tried your best. I think the most important part has been done here, which is providing opportunity for students to guess the meaning. Of course, we can't ask students to tell the Chinese meaning all the time, just for some difficult and important words only”.

“My class consists of 26 students, 8 of whom will be taken out to special group studies while other students stay in for regular lessons, this happens during the major subjects sessions like Chinese, Mathematics and English”.

“Cheer up! Don't get frustrated so soon! I am sure that you can do it! For the groupings, I think you can use differentiated groups. Therefore, students can help each other!”

Answers

“During the activities, she was allowed to use Cantonese if she didn't understand or couldn't express herself in English”. (S)

“Ha ha ha ☺”. (ND)

“She used cooperative groups”. (AP)

“I have found that using reading groups is very useful for setting out of class tasks”. (TPP)

“Interdependence in group work helps build a desire to help others learn; this sink-or-swim feeling keeps students committed to their own learning and that of their peers”. (PP)

“In this class, students' social groups are generally formed along economic lines. Cooperative learning is especially useful in such situations because it provides repeated positive experiences with children from different backgrounds”. (PCF)

“Cooperative learning is being used here because there is a split along economic lines in this community and we want students to accept and value each other in spite of these differences. Such values may contribute, in the long run, to saving this planet”. (EMP)

“Without Chinese, some less able students might not get the meaning although you've tried your best. I think the most important part has been done here, which is providing opportunity for students to guess the meaning. Of course, we can't ask students to tell the Chinese meaning all the time, just for some difficult and important words only”. (PCF)

“My class is consist of 26 students, 8 of whom will be taken out to special group studies while other students stay in for regular lessons, this happens during the major subjects sessions like Chinese, Mathematics and English”. (S)

“Cheer up! Don't get frustrated so soon! I am sure that you can do it! For the groupings, I think you can use differentiated groups. Therefore, students can help each other!” (PP)

Appendix 7

Section of research notes based on observations of interactions from appendix five above

Community - through mutual engagement and shared repertoire;

Practice - learning as doing;

Identity - through the use of shared resources;

Meaning - experiential learning.

Point 1.

Signs of **identity** and **community** building can be observed on a linguistic and semantic level:

On a linguistic level, there are several signs of peer bonding: use of pronouns 'we') is common. Also, statements such as 'I agree with...'; 'when you reminded me, I remembered...'; 'thanks everyone for your advice'; and 'like us'.

On a semantic level, this is an example of **identity** and construction of **community** through consensus. The issue whether participants feel that they need to plan for every lesson is discussed by each participant. Each states the need and benefit of preparing for every lesson. Peers agree that planning in detail is part of the process all teachers go through, and that the more experienced the teacher, the less the need for so detailed a plan. In other words, they agree that as novice-student-teachers, they will have to prepare extensively and that, as time goes on, the need to prepare will probably reduce. However, the trainees also mention that even very experienced teachers still plan extensively by predicting potential questions/ problems or by rehearsing what they will say. One of the final postings on this topic acts as a summing up of the discussion, and one which is positive:

'Every time we revise our lesson plans based on our accumulated experience, we are making progress. However, as for the concern about the time we'll spend on writing lesson plans and the flexibility in the classroom, i personally think that we can view these as a learning experience.'

There are also examples of Wenger's other constructs: 'identity', 'meaning' and 'practice'.

The topic was raised by a trainee. Therefore, the source and ownership of the topic is student-driven, based on students' shared situations. This relates to '**meaning**' – experiential learning is taking place based on real issues that participants feel strongly about.

It is also an example of trainees actively discussing and expanding on a topic through critical reflection: the suggestion of planning units, rather than individual lessons is not referred to by other participants. In this way, there is an observable consensus that, although it requires more work, planning in detail will lead to professional development, and will probably be reduced the more experienced participants become. In this way, the forum has been used by participants to find a consensual response to the problem of lesson planning. It is thus a shared resource for the agreement of policy, which reflects **identity**.

Appendix 8

Section of personal notes

End of week one, case study two: Friday, 6.20pm.

I think the forums are growing quite well as some of the students have been using the site to discuss the kind of persona/first impression that they will try to give for their first lesson. It was Wendy who first brought this up – I think her first lesson starts tomorrow. Unfortunately, only four others have replied so far - the other 4 were busy preparing their lessons in the library so they haven't had a chance to reply yet – I hope they will get involved in the discussion. I should write a prompt perhaps. I could ask them to think back to a time when they met a teacher for the first time and to think about how that teacher came across. This will help to develop some critical thinking and get them to see how their experiences affect their own behaviors.

End of week one, case study two: Saturday, 5.15pm.

Angus has talked about a teacher who really influenced him – that's great although the first impression he had was of someone who was extremely authoritarian. Anyway, I hope it will spark more discussion – so far no one else has posted on the forums.

End of week one, case study two: Sunday, 10pm.

The rest of the students have been talking about teachers who influenced them today. There are quite a few postings - most of them are positive descriptions about teachers they had before. I'm glad about that because Angus was quite negative about his. It seems that they want to have a fairly strict persona and set some ground rules for their first lessons. I think I could tell them about establishing rules by writing out an agreed contract and getting the students to sign it. If everyone abides by it, they can do something enjoyable together at the end of the block practice.

Appendix 9

Example of ranking activity of four statements concerning online learning



Thread: Rank in order

RE: what's more important?

Author: Kay

Date: Tuesday, March 3, 2009

Status: Published

Overall rating: Not rated

I think a, b c and then d. I always have written in a diary and I know that by sitting down, thinking and writing down things helps me to find out more about how I feel. Second most important is hearing from others what they think: they can help me solve me a problem or see something in a new way. Finally, although it is beneficial to upload the lesson plans and teaching materials, I still think that from reading what others think about their experiences can be more meaningful for us. We may have similar things going on and this might give us more insights.



Thread: Rank in order

Post: what's more important?

Author: Andy

Date: Tuesday, March 3, 2009

Status: Published

Overall rating: Not rated

Yes, I also believe that the order is a, b, c, d too. My supervisor during immersion said that she always jots down in her diary about her lessons. She can recall many events that way which helps her to remember about the children. If others can also share and reply to our experiences then we can learn even more. This is a very helpful way to improve.

Thread: Rank in order

Post: what's more important?

Author: Crystal

Date: Tuesday, March 3, 2009

Regarding the order, I agree with a, b, c, then d. I would like to give some comments why. I think as a start it is a as we should try to write down about all our lessons but as we move on with more experiences, then we can write less. And we can try to learn from the others and what they say about our writing – these are the most important. Then, if the others are happy to share their responses to their experiences too then surely we can learn a great deal. We will be experiencing with them when they write and this will open up our minds to many more experiences. Finally, it is very important for us to share our lesson plans and material so that we can get fresh ideas but we all need to do our own plans even if we are teaching the same thing. I think it is still worth it to make different worksheets.

Appendix 10

Example of socialization activity

Thread: Mark

Post: [Mark](#)

Author: Mark BROOKE

Date: Thursday, March 5, 2009

Status: Published

Overall rating: Not rated



Thread: hey, here is Chris

Post: [hey, here is Chris](#)

Date: Wednesday, March 4, 2009

Status: Published

Overall rating: Not rated

Howdy,

It's such fun reading everyone's self-introductions, with which I bet I've known much more about you all. We got lots of interesting ppl here. That's so great!

Now, it's my turn to tell something about me. My name is Chris. I was born and grew up in Canton, a city quite near Hong Kong, in mainland China. The education system in mainland is quite different from HK, I reckon you all have already known that. In senior school, it was compulsory for us to study Chinese, English and Mathematics. Besides, there was a really "wicked" subject, which included geography, history, politics (a very unique subject you can only find in secondary schools in China), biology, chemistry and physics (you may really doubt about how they can manage to put so many subjects in one paper, somehow, they made it. Magical, isn't it?) What's even more magical is that I managed to cram all those subject knowledge in my brain for the national entrance matriculation test (NEMT). I am not really that knowledgeable though (for most of the subjects I just learnt them very superficially), but the cramming of the old days does sometimes enable me to pretend to be wise. That's also why for a really long period of time; I did believe cramming did students well. These four subjects I just mentioned were compulsory. Apart from them, we must choose one more subject as an "X" subject out of geography, biology, chemistry, physics, politics and history to study in depth. History was what I chose at that time. I found it interesting and I enjoyed it very much, though I got loads of names of people, dates and events to memorize.

As you know there is the one child policy in mainland. I have no brothers or sisters: I always longed to have an elder brother. But yeah, no matter how, my mum can only give birth to a younger one. So I'd better forget about it.

In my leisure time, I like doing sports. Table tennis is my favorite. Currently, I am a table tennis player of our institute squad. I like yoga and hiking as well. I've started to play the piano since I was four. My parents are crazy about music. They wanted me to become a pianist so much that they pushed me to practise it for a long time every day. Even now, whenever I nip back home, the first question my mum asks would be "have you practised playing the piano these days?" Geees, I like piano but not when my mum pushes me so hard. I

enjoy reading too. I have got a great passion for literature, which I think makes you think about your life and enables you to see the world more critically. I think being able to appreciate literature is a prerequisite to become a teacher, especially a language teacher. I like musicals too. The Phantom of the opera in Her majesty's theatre is awesome. How I wished I could have also watched Les Miserables when I was in the UK.

It's better for me to stop here now. I am quite talkative as you can see. I am afraid if I do not control myself a bit, I will write thousands of words here.



Thread: i m Kay^V^

Post: [i m Kay^V^](#)

Date: Thursday, March 5, 2009

Status: Published

Overall rating: Not rated

i am so happy to work with you all.

Okay, let me introduce myself. i am Kay. i am afraid none of you really know me. So, maybe i just tell you a little bit about me.

i am the youngest sister in my family. i have a sister who is 3 years older than me. She didn't pass her HKCEE, so she went to study in Seattle, the USA. She did BA degree in anthropology at the Washington State University. She has come back HK for a year now and she works as a vet nurse in Yuen Long. She is still single.

I live in Tuen Mun. I have been living there since I was born. I was in science stream and did Phy, Chem, Bio in advanced level. I got 21 in my HKCEE and only 2C, 1D and 2E in my AL.

Ok. It is too serious to talk about my academic performance. Let's talk about my hobbies and interests. I like eating out with friends, watching ballets and window shopping. I usually shop around TST. I like playing tennis but I am not good at it at all. Currently, after taking the contemporary lit this semester, I become more and more interested in reading. I like animals a lot and I am quite environmental-friendly. I am particularly concern about carbon emission and endangered species. I don't eat toro and tuna because its number is decreasing dramatically.

I normally stay at hall during weekdays. I have a problem that i don't ans phone frequently coz I switch it to silent mode all the time and I forgot my mobile all the time.



Thread: It's Ray

Post: [It's Ray](#)

Date: Friday, March 6, 2009

Status: Published

Overall rating: Not rated

Hi there, it's Ray. I was a student in the Science stream too, in Secondary School. I finished

my whole secondary school life in one school and I am going to go back there for my teaching practice. You might think it's good for me to go back there, but I am worried about that because everyone knows me and that gives me some pressure. Anyway, I will do my best and write something here if there is the need.

Now it's time for my introduction. Well, I didn't expect Mark would tell us so much and neither would I. But I will tell. I have many siblings: 3 older sisters, 1 younger brother and 1 younger sister. I am the fourth. Obviously, my parents wanted to have a son, see? We, except my oldest sister, live in Tai Po. But that sister has not married yet.

I am quite environmental friendly too, especially for paper, electricity and gas. Oh, I try my best to eat everything in meals as well. I like cycling, playing badminton, Nintendo DS, hiking and of course sleeping and eating. However, I am currently too lazy to play sports... ^.^"

I am a Christian and go to church every Sunday. At the moment I am thinking of changing church.

For the immersion, I stayed with a family of four. They are very nice people and we are still in contact. One thing I want to mention is that my host Dad is called Mark too. ^^ He is bigger in size but I love him very much. I talked a lot with my host Mum and played all the time with the two children. I just love them all. I made two dolls with wool there and this is one of my hobbies.

Okay, time to go. Hope all these help all of you know me better and we could keep working together in the coming months.



Thread: Andy
Post: [Andy](#)

Date: Friday, March 6, 2009
Status: Published
Overall rating: Not rated

Dear everybody,

Thanks, Mark and Kay for your introduction. I know a lot more about you two!

Now, I guess it's my turn to introduce myself. My name is Andy. I don't live in student residence in the campus so I don't know any of you though we are studying in the same programme. Do share a little bit more about yourself if you are free. I understand that all of you are very busy writing assignments and preparing for your teaching practice. Let's work hard together!

A little bit about myself and my family. Unlike Mark and Kay, I don't have any siblings. I am the only child in the family. I am always jealous of others who have got a brother and sister to

talk to when they are upset or happy. Well... when I have problems, I turn to either my parents or my close friends. So, being a friend of mine is not easy, at least you need to bear with me and my wining most of the time. Ha-ha. Despite this, I do keep a very good relationship with my parents. I play tennis (my favourite sport) with them during weekends and I talk a lot with my mother.

I graduated from in Kowloon. I was doing Physics, Chemistry and Biology in matriculation. Unfortunately, I didn't do very well in all three of them as I hate studying mathematics or basically just numbers!! It took me more than five years to figure out this. But I find other foreign languages like French, Italian, Japanese or even Putonghua interesting to learn. And of course, I find teaching very interesting as well.

Apart from doing sports in my leisure time, I love doing community services. I have been a volunteer since secondary two. I help organised activities mainly for patients in hospitals, the elderly and children. And now, I am planning together with 4 other friends of mine to work on a project to help orphans in the coming summer holiday.

I have been to Durham. I love the tranquility of the town and the beautiful campus and historical cathedral there. Everything was so peaceful, calm and harmonious. I was very lucky because I had a very caring Italian host mum, Patrizia, when I was in Durham. I enjoyed her Italian dishes and their coffee very much. If I have a chance to do my master's degree overseas, I would definitely choose Durham again and perhaps to knock on Patrizia's door again.

Got to work on my drama script again... talk to all of you later!

Andy



Thread: Jane
Post. [Jane](#)

Date: Saturday, March 7, 2009
Status: Published
Overall rating: Not rated

Hello everyone, this is Jane. I feel so glad that I have such a wonderful group for my TP. Perhaps let me talk about some of my background.

I am very blessed, I have a wonderful family, and my dad and mom are simply the best on earth. I have a younger sister as well, she is four years younger than me, we used to fight since we are babies, and now we still fight from time to time. But all together they are lovely, and we have a really closed relationship.

My favorite subject at school was English literature but the school is over-competitive, the seven years of secondary education I had was quite stressful. Everyone is so talented, and most of the learning is done by ourselves, but I learned to be responsible for my own learning.

I am quite an artistic person, apart from academic; I enjoy doing artwork, ballet and classical music very much. There have been times I really want to change my major to Visual Art, especially after knowing the actual workload of being an English teacher.

Being a teacher is my dream since I am in primary two. I like teaching because it is a career that can shape the lives of many. It is also a career that can keep polish my personality and strive myself to become a better role model for others. Although I can foresee that being a teacher is simple not easy, we are always learning and improving. And I hope we can support each other on this difficult road of becoming a successful teacher.

:)

Appendix 11

An extract from the *finding a similarity activity*



Thread: I'm Kay^V^

Post: [I'm Kay^V^](#)

Date: Friday, March 6, 2009

Status: Published

Overall rating: Not rated

Mark and I have a sister; Chris, Andy, Ray and I all did Physics, Chemistry and biology in A level. I play tennis and Chris plays table tennis (nearly the same ^V^). Jane, Chris and I love reading literature very much. I didn't mention it before, but I really love Japanese too! Same as Andy! I am sure we will all work so well together in the coming 2 months!



Thread: Andy

Post: [Andy](#)

Date: Monday, March 9, 2009

Status: Published

Overall rating: Not rated

Dear everybody – here are things I found that we all share:

For the immersion, I stayed with a family of four. They are very nice people and we are still in contact (Ray). I stayed with a great family and we are in touch often too.

Chris: an "X" subject of geography, biology, chemistry, physics, politics and history to study in depth.

Ray: I was a student in the Science stream too, in Secondary School.

Kay did science too!

It seems we all come from science backgrounds for our A levels.

I agree with kay too am much more environmental than I was before. This is so important today!

I love English literature, just like Jane! I especially like drama and acting.

Jane said: Being a teacher is my dream since I am in primary two. I like teaching because it is a career that can shape the lives of many. It is also a career that can keep polish my

personality and strive myself to become a better role model for others.

I have always wanted to be a teacher too to make a difference. Let's all help each other to realize our dreams.

Talk to all of you later! Andy.

Appendix 12: Tutor moves to scaffold the double loop learning process online

Related to Walker et al's (2004) conclusions, 'probe' (asking questions to elicit more information from a student) was found to be one of the most effective online tutor moves.

Helen: *"In my class, I tried a game: 'New Words of the Day' because some students showed me English words that they wanted to know from our text book. I whisper the word to a student who takes the courage to describe the word in front of the class. If the class guesses the word, the describer gets one point. The reaction of the students to the game was great. They were motivated and attentive in class. A lot of students raised up their hands to answer".*

Tutor: *I think it's important to find ways of making potentially tedious activities interesting (**empathize**). Engaging the learner is essential in teaching (**restate**). What conclusions might you draw from this? (**Probe**)*

Helen: *"I think that students were very motivated and attentive in class because they chose the words we could learn from the textbook. This gave them more responsibility."*

Tutor: *'Is this kind of practice common in Hong Kong classrooms? What have you read in your studies about giving students more responsibility? (**Probe**)*

Helen: *"In Hong Kong, students are too often given vocabulary lists to learn relatively passively, and these are commonly tested through whole class dictations. I will try to let students have more responsibility to choose what we learn. This is much more student-centered and motivating".*

Tutor: *"So this is a whole new way of looking at teaching. We might say it is a 'paradigm shift' because we are moving away from a constant teacher-centered and exam-oriented focus in which students are relatively passive, to one in which students take the lead and responsibility to choose a portion of the language syllabus to be learnt. This is very innovative; a characteristic of promoting learner autonomy, which I think is an ethical issue: giving no choice might be deemed unethical (**inform/fact**). Have the others had a similar experience? (**Eliciting other trainees' comments**)? What do you all think about this? (**Asking for consensus on topics**)?"*

Rain: *"I think we can use interesting materials (e.g. songs, movies etc.) to teach our students and to increase choices for the. I think the problem is how we strike the balance between exams and more 'meaningful tasks'. Actually, the system in Hong Kong does not really allow teachers to do this unless we have extra-curricular activities at lunch break or after school.*

Tutor: *Thank you for your sharing. Yes I know it is very difficult. Anybody else?* (**Eliciting other trainees' comments**)

Kay: *"I agree that we don't have time to adopt these strategies and I think after the same way of teaching for 7, 8 years, students need to adjust to this approach. Some students just want to get a higher grade rather than improve their language proficiency to a higher level.*

Tutor: *of course* (**empathize**) *but an important part of the curriculum is the training of life skills (challenge) and being able to work independently is a very important part of this* (**inform/fact**). *We are trying to train students to monitor and manage their own learning too.*

Crystal: *I think that our students should be actively engaged and focused. After all, there are so many resources they can use on their own now.*

Tutor: *That's right.* (**Encourage**) *What do the others think?* (**Asking for consensus on topics**) *Does anyone wish to share a resource for students to work with at home?* (**Eliciting other trainees' comments**) *I think the British Council has some good resources for secondary students.* (**Instruct**)

Appendix 13
Informed consent form

TITLE OF PROJECT: 'Enhancing pre-service teacher training: the construction of an online model to develop reflective practice' carried out by Mark Brooke.

Do you consent to participate in the study? YES/NO

Do you understand that you are free to withdraw from the study?

at any time and

without having to give a reason for withdrawing and

without affecting your position in the University? YES / NO

Do you understand that data from the study may be used anonymously YES / NO
in the final report or for future articles?

Signed **Date**.....

(NAME IN BLOCK LETTERS)

.....

Appendix 14

Code of Practice on Research Ethics

Name: Mark Brooke

Title of research project: Enhancing pre-service teacher training: the construction of an online model to develop reflective practice.

Questionnaire

		YES	NO	
1.	Does your research involve living human subjects?	YES		IF NOT, GO TO DECLARATION AT END
2.	Does your research involve only the analysis of large, secondary and anonymised datasets?		NO	IF YES, GO TO DECLARATION AT END
3a	Will you give your informants a written summary of your research and its uses?	YES		If NO, please provide further details and go to 3b
3b	Will you give your informants a verbal summary of your research and its uses?	YES		If NO, please provide further details
3c	Will you ask your informants to sign a consent form?	YES		If NO, please provide further details
4.	Does your research involve covert surveillance (for example, participant observation)?	YES		If YES, please provide further details.
5a	Will your information <i>automatically</i> be anonymised in your research?	YES		If NO, please provide further details and go to 5b
5b	IF NO Will you explicitly give <i>all</i> your informants the right to remain anonymous?	YES		If NO, why not?
6.	Will monitoring devices be used openly and only with the permission of informants?	YES		If NO, why not?
7.	Will your informants be provided with a summary of your research findings?	YES		If NO, why not?
8.	Will your research be available to informants	YES		If NO, please provide further

	and the general public without authorities restrictions placed by sponsoring authorities?			details
9.	Have you considered the implications of your research intervention on your informants?	YES		Please provide full details
10.	Are there any other ethical issues arising from your research?		NO	If YES, please provide further details.

Further details

As this was a study of online communication and interaction in a Virtual Learning Environment, dialogues between participants were observable at all times for members of the restricted community. This was known and accepted by all participants.

Continuation sheet NO (delete as applicable)

Declaration

I have read the Department's Code of Practice on Research Ethics and believe that my research complies fully with its precepts. I will not deviate from the methodology or reporting strategy without further permission from the Department's Research Ethics Committee.

Signed: *Mark Brooke*

Date: 09/10/13

SUBMISSIONS WITHOUT A COPY OF THE RESEARCH PROPOSAL WILL NOT BE CONSIDERED.

Appendix 15

Restricting Access to Thesis Form

Personal Details:

DEGREE FOR WHICH THESIS IS BEING SUBMITTED:	Doctorate of Education
STUDENT ID:	Z0501622
SURNAME (Block Capitals):	Brooke
FORENAMES (Block Capitals):	Mark
DEPARTMENT:	Education

Candidate Declaration:

I wish to restrict public access to my Thesis for a period of 5 years on the grounds of exemption(s) allowed under the Freedom of Information Act 2000.

The following exemptions may apply to my material (please provide details):

<input type="checkbox"/> The material is due for publication or I am actively seeking to publish this material (section 22)
<input type="checkbox"/> Release of the material would prejudice substantially the commercial interests of any person (section 43)
<input type="checkbox"/> The material includes information that was obtained under a promise of confidentiality (section 41)
<input checked="" type="checkbox"/> The material contains personal information about you or a third party for which disclosure would breach the Data Protection Act or otherwise endanger the health and safety of you or a third party. (section 40)

The material has been produced as part of my work while at an Institute for teacher training in Hong Kong. It thus depicts to a certain extent, the work of its employees, which may be judged.

☐ Other (please specify)

Signature:

Mark Brooke

Date:

09/10/2013

Supervisor's endorsement:

I confirm that I agree with the decision indicated on the form by the author of the thesis with respect to access to the thesis.

Primary Supervisor's
signature:

Date:

This form must be completed by the candidate and returned to PG Administration, Academic Support Office, University Office, Old Elvet, Durham, DH1 3HP.

October 2013